CHAPTER-IV

RESULTS
RESULTS

*Abroma augusta* L.f. (Sterculiaceae).

LN: Sangfa (N).

**Descr:** Shrub; root branched, yellowish white; leaves alternate, lobed, denticulate, upper surface glabrous, lower surface tomentose; flower dark red; capsule hairy.

**Habitat:** Roadsides, riverbanks (Fig. 15).

**Regen:** By Seeds.

**Fl:** May to July; **Fr:** Aug. to Oct.

**Distrib:** (a) Indonesia, Philippines, Nepal, China; (b) Tamil Nadu, Andhra Pradesh, Bihar, Uttar Pradesh, Assam, West Bengal; (c) Elephant flat, Seppa, 300m to 400m (Rare).

**Other uses:** DD

**Uses:** DD

**Market value:** (b) Rs. 30.00 to 35.00 per kg of dry flower.

(c) Rs. 12.00 per kg of root powder.


LN: Chanado (TM).

**Descr:** Herb, 70-80 cm high; root biennial, tuberous, dark brown, conical; leaves scattered, linear to lanceolate and divaricate; inflorescence raceme; flower blue; fruit follicle.

**Habitat:** Grassy moist hilly slopes (Fig. 16).
Regen: By root.


Distrib: (a) Alpine Himalaya of Nepal; (b) Sub-Alpine region of Uttarakhand, Himachal Pradesh, Jammu & Kashmir; (c) Duangba, Sangri, Tawang, Arathree, 2600m to 3250m (Rare).

Part(s) and local uses: Root against body pain and cardiac pain.

Form of use: Root decoction.

Preparation: Very less quantity (with the help of a needle tip) is boil in a glass of water until it becomes half.

Dose: Half a glass once daily in alternate days till cured.

Other uses: Roots used as arrow poison.

Uses: Ayurveda: The root is treated first with urine or milk of the cow, or with cowdung for three or more days and are renewed every day, then used against inflammatory throat complaints and fevers; as stimulation of bile secretion; as cure of lungs, intestine, joints inflammations.

Unani: Root used against leprosy and inflammatory complaints of the throat and lungs.

Market value: (a) Rs. 100.00 per kg of dry root at Tawang.
(b) Rs. 50.00 per kg of dry root.
(c) Rs. 129.00 per kg of dry root.

Exsiccatum: Duangba, 15.5.2004, Kar 125.

Aconitum heterophyllum Wall. ex Royle, (Ranunculaceae).

LN: Bonkar, Chenth tenduk (DM); Menchine (TM).

Descr: Herb; root biennial bearing few root fibres, whitish or grey; leaves heteromorphous, blade orbicular-cordate; inflorescence raceme; flower blue or violet; follicles linear-oblong.

Habitat: Grassy moist hilly slopes (Fig. 17).

Regen: By root.

**Distrib:** (a) Nepal, Bhutan, (b) Sub-alpine and alpine zone of the Himalayas from the Indus to Kumaon 2500m to 5,000m, Sikkim; (c) Duangba, Sangrila, Tawang, Arathree, 2600m to 3250m (Rare).

**Part(s) and local uses:** Root against malaria.

**Form of uses:** Decoction.

**Preparation:** Very less quantity (taken with the help of a needle tip) boil in a glass of water until it becomes half.

**Dose:** Half glass once in daily for ten days.

**Other uses:** Root is used as arrow poison.

**Uses:** *Ayurveda:* Root used as stomachic, digestive; used in dysentery, bilious complaints, diarrhoea, and against bites of poisonous rat, snake and scorpion. Heavy doses causes constipation.

*Unani:* Root used against piles, bile complaints, flatulence, infantile diarrhoea, dysentery, cough, fever, ascites and as tonic.

*Siddha:* The root is intensely bitter and is used in combination with long pepper against pain in the bowels, and to cure diarrhoea and vomiting.

**Market value:** (a) Rs. 120.00 per kg of dry root at Tawang.

(b) Rs. 700.00 per kg of dry root.

(c) Rs. 43.00 per kg of dry root.

**Exsiccatum:** Duangba, 15.5.2004, Kar 125.

**Acorus calamus** L. (Araceae).

**LN:** Ging Paychay (DM); Shidaknakpo (TM); Rhanje (Sher); Inchado (Mi); Suta (KM).

**Descr:** Aromatic marshy herb with creeping rootstocks; rhizome with fragrance, and white inner portion; leaves distichous, midrib stout, linear, entire; flower yellow.
**Habitat:** Marshy places (Fig. 18).

**Regen:** By rhizome.

**Fl:** Sept. to Oct.; **Fr:** Nov. to Dec.

**Distrib:** (a) Sri Lanka, China, Pakistan, Bangladesh, Malaysia; (b) throughout India, Himalayas up to 1500m; (c) Seijusa, Bhalukpong, Tipi, Seppa, Salari, Dirang, Namchoo, Kalaktang, Bomdir, 160m to 2350m (Common).

**Part(s) and local uses:** (i) Rhizome against blood dysentery (DM), (Mi); (ii) Rhizome against roundworm (TM).

**Form of use:** Fresh extract for both the cases.

**Preparation:** (i) 100gm fresh rhizome grinded with little water and juice is extracted. ; (ii) Juice of about 50gm fresh rhizome.

**Dose:** (i) One teacup, thrice daily after meals for two days; (ii) One tea cup once daily for five days.

**Other uses:** DD

**Uses:** **Ayurveda:** Rhizome used as carminative, anthelmintic, appetizer, useful in mouth disease, abdominal pain, fever, epilepsy, bronchitis, dysentery, tumours, rat bite, worms in the ear, hoarseness, tonsillitis, epilepsy and to improve memory.

**Unani:** Rhizome laxative, carminative, brain tonic, emmenagogue; used against weakness, stomatitis, toothache, chest and liver pain, kidney troubles and leucoderma.

**Siddha:** Rhizome improves memory retention and recall.

**Market value:** (a) Rs. 8.00 per kg of rhizome at Shergaon.

(b) Rs. 30.00 to 100.00 per kg of rhizome.

(c) Rs. 1848.00 per lit of rhizome oil.


LN: Sengnay (N).

Descr: Annual herb, 60-90cm high; leaves opposite, rhomboid; stem, leaves and branches pubescent; node expanded; inflorescence spike; flower greenish white, filaments and fringes pink; fruit achene.

Habitat: Roadsides (Fig. 19).

Regen: By seed.

Fl: Oct. to Dec.; Fr: Nov. to Jan.

Distrib: (a) South Africa, Mauritius, Sri Lanka, America, Australia, Pakistan; (b) Assam, West Bengal, Meghalaya, Nagaland, Tamil Nadu; (c) Seijusa, Bhalukpong, Tipi, Seppa, 160m to 400m (Common)

Part(s) and local uses: Root against headache.

Form of use: Paste.

Preparation: Fresh roots of mature plants made into paste and messaged on forehead.

Dose: Once daily for three days.

Other uses: DD

Uses: Ayurveda: Plant bitter, pungent and used as laxative, stomachic, carminative; improves appetite; useful in vomiting, bronchitis, heart disease, piles, itching, pain in the abdomen, ascites, dyspepsia, dysentery, disease of the blood; seeds are useful in piles.

Market value: (b) Rs. 10.00 per kg of whole plant.

(c) Rs. 240.00 per kg of plant powder.

Exsiccatum: Bhalukpong: 10.11.2003; Kar 35.


LN: Basha ga sheng (DM); Taper (N).
**Descr:** Shrub; stem square; leaves opposite, elliptical, acute at both the ends, entire, wavy; bract green; flower in dense spike, white; capsule pubescent, four seeded.

**Habitat:** Roadsides, along forest margin (Fig. 20).

**Regen:** By cutting and seed.

**Fl:** Sept. to Oct.; **Fr:** Nov. to Jan.

**Distrib:** (a) Sri Lanka, Singapore, Bangladesh and Nepal; (b) Punjab, Assam, West Bengal; (c) Seijusa, Bhalukpong, Seppa, Bana 160m to 600m (Rare).

**Part(s) and local uses:** (i) Leaves against malaria (DM); (ii) inflorescence and tender leaves against jaundice.

**Form of use:** Decoction.

**Preparation:** (i) 200gm fresh leaves boiled in two glass water until it becomes half.

(ii) 100gm tender leaves and inflorescence boiled in half-liter water for ten minutes.

**Dose:** (i) One glass once daily for fifteen days; (ii) twice daily for six days each time one and a half glass.

**Other uses:** Flowers used as vegetable (DM).

**Uses:** Ayurveda: Leaves used to treat tuberculosis, bronchitis and cough.

**Market value:** (b) Rs. 6.00 to 10.00 per kg of dry leaves.


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*Ageratum conyzoides* L. (Asteraceae).

**LN:** Paspai (N).

**Descr:** Annual succulent herb; leaves and stem covered with scanty small hairs; leaves opposite, ovate, coarsely serrated; flower many on a purple or bluish head; flower light purple or bluish in colour; fruit achene with pappus.
**Habitat:** in open places along roadsides (Fig. 21).

**Regen:** By seeds.

**FI:** Jan. to Aug.; **Fr:** Sept. to Oct.

**Distrib:** (a) America, Mexico, Brazil, Argentina, China; (b) Bihar, Uttar Pradesh, Assam, West Bengal; (c) Seijusa, Bhalukpong, Seppa, 160m to 400m (Common).

**Part(s) and local uses:** Leaves against cuts and wounds.

**Form of use:** Fresh leaf juice.

**Preparation:** Fresh leaf juice is applied to cuts and wounds as haemostatic and as antiseptic.

**Dose:** Daily once for two days.

**Other uses:** DD

**Market value:** (c) Rs.88.00 per kg of whole plant powder.

**Exsiccatum:** Bhalukpong, 6.8.2002, Kar07.

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*Allium hookeri* Thw., (Liliaceae).

**LN:** Purun (N).

**Habitat:** Hilly slopes (Fig. 22).

**Regen:** By bulb.

**Descr:** Herb; bulb small, white; leaves, linear with pungent smell; flower white; root fibrous, white.

**FI:** Nov. to Dec.; **Fr:** Jan. to Feb.

**Distrib:** (a) China, Myanmar, Bhutan; (b) Manipur, Meghalaya; (c) Seppa, Bomdila, Tawang, 360m to 2800m (Common).

**Part(s) and local uses:** Root against joint pain.

**Form of use:** Paste.
**Preparation:** 100gm fresh root made into paste.
**Dose:** Massaged on the affected parts once daily.
**Other uses:** Leaves and roots are used in chutney (N).
**Uses:** DD

**Market value:** (a) Rs. 40.00 per kg of fresh root and leaves at Seppa market.
Rs. 20.00 per kg of fresh root at Bomdila market.
(c) Rs. 960.00 per kg of root powder.

**Exsiccatum:** Tawang, 24.9.2003, Kar 24.

**Alpinia galanga (L.) Sw.** (Zingiberaceae).

**LN:** Noaung So Mann (DM).

**Descr:** Perennial herb; root stock perennial, tuberous, aromatic; leaves oblong - lanceolate, acute, glabrous, pale green beneath; flower greenish white in dense flowered panicles; fruit globose; marble-shaped.

**Habitat:** Hilly slope (Fig. 23).

**Regen:** By rhizome.

**Fl:** Apr. to June; **Fr:** July to Sept.

**Distrib:** (a) China, Sri Lanka, Malaysia; (b) Meghalaya, Sikkim, Uttarakhand; (c) Namchoo, 2000m (Rare).

**Part(s) and local uses:** Rhizome against mouth ulcer and wart on tongue.

**Form of use:** Root paste.

**Preparation:** 50 gm fresh rhizome grinded into paste.

**Dose:** The paste is applied on infected part and washed after 20 minutes. Once daily till cure.

**Other uses:** DD
Uses: **Ayurveda**: Rhizome used as stomachic, appetizer, useful in bronchitis, heart disease and epilepsy.

**Unani**: Rhizome- used as stomachic, aphrodisiac, tonic, diuretic, expectorant, carminative, and used in headache, rheumatic pains, asthma, sore throat, chest pain, diabetes, burning of the liver, kidney disease and sexual debility.

**Market value**: (b) Rs. 30.00 to 40.00 per kg of fresh rhizome.
(c) Rs. 4440.00 per kg of rhizome powder.


**LN**: Pelo (N).

**Descr**: Annual herb, 1 to 1.5m high with perennial rootstock; leaves oblong, glabrous, margin wavy, 30 to 50 cm long and 10 to 15cm broad, midrib prominent, petiole long and sheathed; flowes in terminal racemes or in panicles, white or slightly pink, 2 cm. Across and 1 to 1.5 cm. long, complete, pedicellate, zygomorphic; capsule, 1.5 cm across, slightly oblong.

**Habitat**: Marshy land and wet forest floor (Fig. 24).

**Regen**: By rhizome.

**Fl**: May to Aug.; **Fr**: Sept. to Oct.

**Distrib**: (a) Myanmar, Malaysia, China; (b) Assam, West Bengal, Manipur, Nagaland; (c) Bhalukpong, Seijusa, Seppa, 160m to 400m (Common).

**Part(s) and local uses**: (i) Root against toothache, and (ii) Stem against gastritis.

**Preparation**: (i) fresh root by chewing; (ii) decoction of the stem pith.
Dose: (i) 1 small piece of about 1cm root is chewed daily twice for five days; (ii) a tea cup-once daily for fifteen days.

Other uses: Stem pith is used as vegetable (N).

Uses: DD

Market value: (a) Rs. 40.00 per kg of stem pith at Seppa market.


*Alstonia scholaris* (L.) R.Br., (Apocynaceae).

LN: Ashak (DM).

Descr: Medium sized tree; leaves 4-7, in whorl, coriaceous, oblong-lanceolate or obovate, obtuse; flower greenish white in umbellately branched, inflorescence, mild fragrant; fruit follicles.

Habitat: In open places along roadsides and forest margins (Fig. 25).

Regen: By seed.


Distrib: (a) China, Java, Sri Lanka, Tropical Africa, East Australia; (b) Tamil Nadu, Kerela, Orissa, West Bengal, Assam, Tripura; (c) Seijusa and Bhalukpong, 160m to 250m (Rare).

Other uses: Timber used as fuel (DM).

Uses: Ayurveda: Stem bark used in asthma, leucoderma, ulcers, blood disease, tumours, chronic ulcers, malaria, asthma and as appetizer, laxative, anthelmintic.

Market value: (b) Rs. 15.00 per kg of dry bark.

(c) Rs. 240.00 per kg of stem barks powder.


*Amaranthus spinosus* L., (Amaranthaceae).

LN: Pachang Ta (N).
**Descr:** Annual herb, 60-90 cm high; stem soft, glabrous with sharp axillary spines; leaves opposite and alternate, ovate with blunt apex; male flowers terminal in spikes, female flowers clustered below the male flowers.

**Habitat:** In open places along roadsides and in cultivated lands (Fig. 26).

**Regen:** By seed.

**Fl:** Aug. to Dec.; **Fr:** Jan. to Apr.

**Distrib:** (a) Sri Lanka, Cambodia, Goldcoast, Madagascar, Bangladesh, Pakistan, Malaysia, China; (b) Assam, Tripura, Manipur, Bihar, Orissa, Punjab, Maharashtra; (c) Seijusa, Tippi, Bhalukpong, Seppa, 160m to 400m (Common).

**Part(s) and local uses:** Tender shoots enhance digestion.

**Form of use:** Boil leaves and shoots.

**Preparation:** Five young shoots are boiled and taken with rice.

**Dose:** Twice daily for three days.

**Other uses:** Stem and leaves used as vegetable (N).

**Uses:** *Ayurveda:* Plant cooling and used as digestive, laxative, diuretic, stomachic, antipyretic; improves appetite; useful in blood diseases, burning sensation, hallucination, leprosy, bronchitis, rat-bite, piles, leucorrhoea. The root is expectorant; reduce the menstrual flow; useful in leucorrhoea and leprosy.

**Exsiccatum:** Bhalukpong, 15.12.2003, Kar41.


**LN:** Pachang (N).

**Descr:** Annual herb, 40-70 cm high; stem ribbed; leaves opposite, ovate with blunt notch at rounded tip; flower minute, green.

**Habitat:** In open places along roadsides (Fig. 27).

**Regen:** By seed.

**Fl:** Sept. to Jan.; **Fr:** Feb. to Apr.
**Distrib:** (a) Brazil, Argentina, Pakistan, China, Malaysia; (b) Assam, Bihar, Uttar Pradesh, Madhaya Pradesh, Harayana, Gujarat, Kerala; (c) Seijusa, Bhalukpong, Tippi, Seppa, Jamiri, 160m to 1160m (Common).

**Part(s) and local uses:** Tender shoots enhance digestion.

**Form of uses:** Boil shoots.

**Preparation:** Three tender shoots boiled and eaten with rice.

**Dose:** Once daily for five days.

**Other uses:** Stem and leaves used as vegetable (N).

**Uses:** *Ayurveda:* Plant cooling used as digestive, laxative, diuretic, stomachic, antipyretic; improve appetite; useful in blood disease, burning sensation, hallucination, leprosy, bronchitis, rat-bite, piles, leucorrhoea. The root is expectorant; reduce the menstrual flow; useful in leucorrhoea and leprosy.

**Exsiccatum:** Bhalukpong, 15.12.2003, Kar 42.

*Amomum subulatum* Roxb., (Zingiberaceae).

**LN:** Bela (N); Elchi (DM).

**Descr:** Herb; leaves oblong-lanceolate, green, glabrous; flower in spike, globose, dense, peduncled, yellow; capsule 2-3cm long, globose, red brown, black when ripe.

**Habitat:** On moist grassy slopes; recently introduced for cultivation from Kerala (Fig. 28).

**Regen:** By rhizome.

**Fl:** June to Aug.; **Fr:** Sept. to Nov.

**Distrib:** (a) Sri Lanka, Nepal; (b) Meghalaya, Sikkim, Uttaranchal, Kerala, Tamil Nadu; (c) Salari 1300m (Rare).

**Part(s) and local uses:** Dry fruit against cough (DM).
Form of use: Infusion.
Preparation: Four dry fruits soaked overnight in one-cup water.
Dose: One cup, once daily for a week.
Other uses: Fruit used as spice (N); (DM).
Uses: Ayurveda: Seeds used as stomachic and used against indigestion, vomiting, enlarged spleen, itching, biliousness, abdominal pains, disease of the rectum and for heal mouth ulcer.
Unani: Seeds used as stomachic, heart and liver tonic, astringent, hypnotic, appetizer; fruit shell good for headache, teeth and heal stomatitis.
Siddha: The seeds are credited with stimulant, stomachic, alexipharmic and astringent properties, and are prescribed for the treatment of indigestion, vomiting, biliousness, abdominal pains and rectal diseases. The oil from the seeds is aromatic, stimulant, anti-inflammatory.
Market value: (a) Rs. 80.00 per kg of dry fruit at Salari
(b) Rs. 30.00 to 35.00 per kg of dry fruit.

Amorphophallus bulbifera L., (Araceae).
LN: Taboi foigay (N).
Descr: Binneial herb; tuber depressed-globose; leaves palmately lobed, leaflets 5-12cm. long; petiole with white stripe; spathe campanulate, male & female flower separate; unisexual, gives foetid smell; berry red, obovoid.
Habitat: Roadsides, often in forest floor (Fig. 29).
Regen: By tuber.
Fl: June to Aug.; Fr: Sept. to Nov.
**Angiopteris evecta** (Forst.) Hoffm., (Angiopteridaceae).

**LN:** Bokka (Ak).

**Descr:** Huge fern; stem thick, short; leaves bipinnate, 1-3m long, young leaves circinate, leaflets ribbon like with beaked tip, entire; spore along leaf margin, brown.

**Habitat:** In dense moist forest (Fig. 30).

**Regen:** By spores, rhizome.

**Distrib:** (a) Australia, China, Myanmar, Nepal; (b) Assam, Manipur, Tripura, Meghalaya, Karnataka, Kerala; (c) Jamiri and Sessa, 1160 to 1250m (Rare).
Part(s) and local uses: Rhizome against blood dysentery.

Form of use: Fresh juice.

Preparation: Fresh rhizome is grinded by adding little water and juice is extracted.

Dose: Two-table spoons once daily for five days after meal.

Other uses: Leaves used in religious ceremony (Ak).

Uses: DD

Exsiccatum: Jamiri, 10.5.2003, Kar 15.

Argyreia nervosa (Burm.f.), Syn. Convolvulus nervosus Burm.f.,
Argyreia speciosa Sweet., (Convolvulaceae).

LN: Yogin (N).

Descr: Perennial climber; leaves alternate, cordate, entire, silky under surface, flower funnel shaped, light purple; fruit fleshy, globose, orange in colour when ripe.

Habitat: On grassy slopes, roadsides (Fig. 31).

Regen: By seed and rooted stem.

Fl: July to Aug.; Fr: Sept. to Oct.

Distrib: (a) Malaysia, Indonasia, Nepal; (b) Assam, West Bengal, Manipur, Tripura, Kerala, Karnataka; (c) Seijusa, Bhalukpong, Tipi, Seppa, 160m to 400m (Common).

Part(s) and local uses: Stem and tender leaves against cuts and wounds.

Form of use: Fresh extract.

Preparation: Stem and tender leaves crushed and extracted juice is applied to cuts and wounds.

Dose: Once daily for two days.

Other uses: DD

Uses: Unani: Root aphrodisiac, diuretic and used in gonorrhoea, chronic ulcers.


**LN:** Daguay (TM).

**Descr:** Perennial herb; leaves with three elliptical to ovate leathery leaflets; leaf stalk and stem with purple and white spots; spathe dark purple, oblong to ovate, ribbed and striped with white or purple with tail like apex; spadix thick at base and with thread like appendages.

**Habitat:** Roadsides and in forest floor (Fig. 32).

**Regen:** By rhizome.

**Fl:** May to June; **Fr:** July to Aug.

**Distrib:** (a) Tibet, Nepal, Bhutan; (b) Kashmir, Himachal Pradesh, Sikkim; (c) Sessa, Ramda, Khuppi, 1250m to 1600m (Rare).

**Part(s) and local uses:** Rhizome against tuberculosis.

**Form of use:** Decoction.

**Preparation:** About 100gm fresh rhizome is boiled in two glasses of water until the content becomes half.

**Dose:** Daily one glass once for fifteen days.

**Other uses:** Grown as ornamental plant (TM).

**Uses:** DD

**Exsiccatum:** Sessa, 17.5.2005, Kar 200.


**LN:** Loma sunchan dawa (TM).
**Descr:** Perennial climber; leaves alternate, cordate, entire, silky under surface; flower funnel shaped, light purple; fruit fleshy, globose, orange in colour when ripe.

**Habitat:** Roadsides and in forest floor (Fig. 33).

**Regen:** By rhizome.

**Fl:** June to July; **Fr:** Aug. to Sept.

**Distrib:** (a) England, Bhutan, Nepal; (b) Uttarakhand, Sikkim; (c) Sessa, Ramda, Khuppi, 1250m to 1600m (Rare).

**Part(s) and local uses:** Rhizome against tuberculosis.

**Form of use:** Root decoction.

**Preparation:** About 100 gm fresh rhizome boiled in two glasses of water until it becomes half.

**Dose:** Daily one glass once for fifteen days.

**Other uses:** Grown as ornamental plant (TM).

**Uses:** DD

**Market value:** (c) Rs. 240.00 per kg of fresh whole plant.

**Exsiccatum:** Sessa, 17.5.2005, Kar 199.

**Artemisia nilagerica (Clarke) Pampan.,** (Asteraceae).

**LN:** Tapi ramaiang (N); Mulung (DM); Sheoguom (Ak); Nyew lum (TM); Kneay (Sher); Knye (Mi).

**Descr:** Perennial shrub, aromatic; leaves petioled, deeply pinnatisect, lobes entire, toothed, white tomentose beneath; flower head ovoid, subglobose; fruit achene, oblong to ellipsoid.

**Habitat:** In open places along roads and forest (Fig. 34a Aka herbalist preparing medicine from *Artemisia nilagerica*).

**Regen:** By seed.

**Fl:** May to Aug.; **Fr:** Aug. to Oct.

**Distrib:** (a) Myanmar, Thailand, South China, Japan, Sri Lanka, Java; (b) Manipur, Tamil Nadu, Meghalaya, Sikkim, Uttarakhand; (c) Jamiri, Rupa,
Bomdila, Salari, Seppa, Bameng, Mokto, Tawang, 1160m to 3200m (Common).

**Part(s) and local uses:** Leaves used against cuts, cough, vomiting, stomachache (N); against sinusitis, muscle pain (DM); eczema and cough (Fig. 34b a Aka herbalist preparing herbal medicine from *Artemisia nilagiraca*); eye infection, bone fracture, cough, (TM); sinusitis (Sher); haemostatic (Mi).

**Form of uses:** Decoction in cough; fresh juice in cuts, dysentery, vomiting, stomachache, eye infection and sinusitis; paste in bone fracture, eczema and muscle pain.

**Preparation:** 50gm fresh leaves boiled in two glasses of water until it reduced to half; juice extract from fresh leaves by crushing and pounding; paste prepared by crushing and pounding the leaves.

**Dose:** 
- **cough:** one glass decoction, once daily in the in morning for three days; 
- **cuts:** extract applied to fresh cuts; 
- **dysentery:** two table spoons of extract, twice daily for two days;

**Vomiting:** aroma of the crushed leaves inhaled at the time of vomiting tendency; 
- **stomachache:** three table spoons once daily for two days; 
- **sinusitis:** one drop of fresh juice in each nose, once daily for eight days; 
- **eye infection:** one drop fresh juice in each eye, daily twice, for four days; 
- **bone fracture:** fresh paste with the help of cloth and bamboo piece put in bandage and keep for fifteen days; 
- **eczema:** paste is smeared over affected part, once in every alternate day for one month; 
- **muscles pain:** paste applied on affected part, once daily for fifteen days.
Other uses: Leaves and stem used as incense (DM).

Uses: Ayurveda: Leaves appetizer and used against asthma and itching.

Market value: (b) Rs. 20.00 per kg of dry stem and leaves.


LN: Huda (N).

Descr: Deciduous large tree; bark dark brown, reddish inside; latex milky; leaves alternate, elliptic, oblong or ovate, surface rough; inflorescence solitary, axillary, unisexual, male head spongy, yellowish 1.3 to 2.5 cm. diam. Female head green; fruit round, velvety, yellow or orange when ripe, fleshy, 5 to 10 cm across; seeds roundish creamy.

Habitat: Forest (Fig. 35).

Regen: By seed.

Fl: June to Aug.; Fr: Sept. to Nov.

Distrib: (a) Thailand, Sri Lanka, Myanmar, Malaysia; (b) up to 1800m in eastern and northern India, on the west coast it is found from Konkan southwards to Kerala, Tamil Nadu and in Andaman Islands, Assam; (c) Seijusa, Tipi, Bhalukpong, Seppa, 160m to 400m (Rare).

Part(s) and local uses: Stem bark against jaundice and root against roundworm.

Form of use: Decoction and powder.

Preparation: 100gm fresh root bark boil in one and a half glass of water for 10 minutes against jaundice. Fresh roots are dried then crushed and made into powder.

Dose: Daily once in the morning for 15 days against jaundice. One tablespoon powder mixed in one tea cup of warm water, once daily for seven days.
**Other uses:** Stem barks consume with betel leaf as a substitute of betel nut; ripe fruit sweet and sour taste, edible (N).

**Uses:**

- **Ayurveda:** Ripe fruit used as aphrodisiac, improve taste and appetite.
- **Unani:** Ripe fruit used as liver tonic, the seeds are a good purgative for children.

**Exsiccatum:** Seppa, 9.6.2004, Kar 139.


**LN:** Kuchu (DM).

**Descr:** Herbaceous ground orchid. 1.5 to 2m high; stem rigid, sheathed; leaves linear-lanceolate, distichous; flower large purple in terminal erect panicle; fruit capsule.

**Habitat:** Hilly slopes, roadsides (Fig. 36).

**Regen:** By seed.

**Fl:** Oct. to Dec.; **Fr:** Jan. to Mar.

**Distrib:** (a) Nepal, Bhutan, Malaysia, Bangladesh; (b) Assam, Meghalaya, Manipur; (c) Seijusa, Tippi, Jamiri, Salari, 160m to 1300m (Common).

**Part(s) and local uses:** Rhizome against fever and for vitality.

**Form of use:** Fresh juice for both the cases.

**Preparation:** Fresh rhizome is grinded and juice is extracted.

**Dose:** For vitality one tablespoon, once daily, for a week. Against fever two tablespoons, once daily, for three days.

**Other uses:** Planted in the garden as an ornamental plant (DM).
Uses: DD


**Asparagus racemosus Willd.** *(Liliaceae)*.

**LN:** Nayshing (DM).

**Descr:** Climbing herb; branches armed with spines; cladodes long sickle-shaped, 2-6; flower white, fragrant in branched racemes, berry red.

**Habitat:** Forest margin (Fig. 37).

**Regen:** By root and seed.

**Fl:** Aug. to Sept.; **Fr:** Sept. to Nov.

**Distrib:** (a) Tropical Africa, Java, Australia, Nepal, Sri Lanka; (b) Kashmir, Tropical and subtropical India upto 1500m Himalayas, Assam, Meghalaya; (c) Salari, 1300m to 1400m (Rare).

**Part(s) and local uses:** Root against malaria.

**Form of use:** Decoction.

**Preparation:** 50 gm root is crushed and boiled in one glass water until it becomes half.

**Dose:** Half a glass twice daily for fifteen days.

**Other uses:** Planted as ornamental (DM).

**Uses:** *Ayurveda:* Root used as appetizer, stomachic, tonic, aphrodisiac; used in dysentery, tumours, blood and eye diseases, throat complaints, tuberculosis, leprosy, epilepsy, night blindness.

**Unani:** Root used as aphrodisiac, laxative, tonic; used in kidney and liver disease, gonorrhoea.

**Siddha:** The plant is used as a demulcent, diuretic, aphrodisiac, and galactogouge. The root extracts exhibit anti-allergic activity. Along with the leaves of *Gymnema sylvestre* given to diabetic patients.

**Market value:** (b) Rs. 52.00 to 100.00 per kg of mature bulb.

(c) Rs. 60.00 to 70.00 per kg of mature bulb.
Astilbe rivularis Ham.-Buch. ex D. Don (Saxifragaceae).

LN: Lugeypumon (DM).

Descr: Stragling herb; stem and leaves with hairs; leaflets ovate, acuminate, cordate at the base, serrate; rachis of panicle pubescent; flower white, minute; fruit long.

Habitat: Forest floor and roadsides (Fig. 38).

Regen: By seed.


Distrib: (a) Bhutan, Nepal, Japan, Manchuria, Virginia; (b) temperate Himalaya, Kashmir, Himachal Pradesh; (c) Sessa, Dirang, Bomdila, 1250m to 2500m (Common).

Part(s) and local uses: Leaves against joint pain.

Form of use: Decoction.

Preparation: 50 gm root is crushed and boiled in one glass of water until it become half.

Dose: Affected part is washed with the decoction once daily for six days.

Other uses: DD

Uses: DD


Averrhoa carambola L. (Oxalidaceae).

LN: Kordoi (Ak).

Descr: Small tree; leaves pinnate, leaflets 2-5pairs, ovate, glabrous; flower axillary, whitish purple; fruit 4 to 6cm long, star shaped, when ripe becomes yellow.

Habitat: Hilly slopes (Fig. 39).

Regen: By seed.
Fl: Jan. to Mar.; Fr: Apr. to July.

**Distrib:** (a) Malaysia, Indonesia, Pakistan, Bangladesh; (b) Uttar Pradesh, Bihar, Orissa, West Bengal, Assam; (c) Bhalukpong upto 250m (Rare).

**Part(s) and local uses:** Leaf against meseals.

**Form of use:** Paste.

**Preparation:** 200gm fresh leaves are made into paste.

**Dose:** Paste applied on affected parts, once daily for seven days.

**Other uses:** Ripe fruit eaten in chutney (Ak).

**Uses: Ayurveda:** Ripe fruit used as digestive, tonic and revitalizing; raw fruit astringent to bowel.

**Unani:** Fruit astringent to the bowel and used to stops diarrhoea and vomiting.

**Market value:** (b) Rs. 15.00 to 20.00 per kg of fresh fruit.

**Exsiccatum:** Bhalukpong, 20.5.2005, Kar 239.

*Azadirachta indica* A. Juss. (Meliaceae).

**LN:** Makshing loma (TM).

**Descr:** Tree; leaves 5-13 foliolate; leaflets obliquely lanceolate or ovate lanceolate, serrate; flowers white in axillary panicles; berry baccate, when ripe become yellow, pulpy, one seeded.

**Habitat:** Tropical dense forest (Fig. 40).

**Regen:** By seed.

**Fl:** Oct. to Dec.; **Fr:** Jan. to Feb.

**Distrib:** (a) Bangladesh, Pakistan, Myanmar, China; (b) Bihar, Uttar Pradesh, Madhya Pradesh, Assam, Orissa, West Bengal, Kerala; (c) Seijusa, Bhalukpong, Seppa, 160m to 360m (Rare).
Part(s) and local uses: Fruit against madness.

Form of use: Decoction.

Preparation: 50 gm dry fruit crushed and boiled in one glass of water until it become half.

Dose: Half a glass, twice daily for sixty days.

Other uses: DD

Uses: Ayurveda: Bark used against fever, used as anthelmintic and as astringent; against bad taste in the mouth, cough, cures ulcers, good for leprosy; leaves anthelmintic, good in opthalmia, skin disease; flower anthelmintic; unripe fruit anthelmintic, cures urinary discharges, skin diseases, tumours, piles, toothache; ripe fruit useful in consumption, eye disease; seed oil anthelmintic, alterative, good for skin disease; leave juice useful in biliousness.

Unani: Bark used as tonic, antiperiodic; leaves useful as carminative and in earache, rheumatism, boils, heals wounds; bark and leaves anthelmintic, aphrodisiac and used in leucoderma, piles, earache, cures all wounds; flowers are stimulant and stomachic, seed good for the treatment of leprosy.

Market value: (b) Rs. 35.00 per kg of dry leaves.
(c) Rs.306.00 per lit of Neem oil and Rs. 1848.00 per kg of leaf powder.

Exsiccatum: Bhalukpong, 15.8.2004, Kar 133.


LN: Dugurina (DM).

Descr: Dioecious parasitic herb, base sheathed in the subterranean, tuberous mass, scale yellow.

Habitat: In dense moist forest floor (Fig. 41).

Regen: By seed.

Fl: Apr. to May; Fr: June to Sept.
**Distrib:** (a) Tropical Africa, Malagasy, temperate and tropical Asia, China, Australia, Pacific islands; (b) Kashmir to Darjeeling, Sikkim Himalaya; (c) Sessa 1200m to 1250m (very rare).

**Part(s) and local uses:** Flower head against body pain.

**Form of use:** Paste.

**Preparation:** Two flower heads are made into paste and applied on affected body part.

**Dose:** Once daily for four days.

**Other uses:** DD

**Uses:** DD

**Exsiccatum:** Sessa, 8.8.2002, Kar 08.

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**Bauhinia vahlii** *Wt. & Arn.* (Caesalpiniaceae).

**LN:** Khulamcho (DM); Lingchirijong (Mi).

**Descr:** Climber; leaves emerginate, base deeply cordate; flower white in peduncled corymbose raceme; pod flat, woody, rusty-velvety.

**Habitat:** Along streams and forest edges (Fig. 42).

**Regen:** By seed.

**Fl:** Aug. to Sept.; **Fr:** Oct. to Dec.

**Distrib:** (a) Malaysia, Myanmar, Bhutan and Bangladesh; (b) Assam, Manipur, Uttaranchal, Sikkim, Meghalaya; (c) Jamiri and Salari, 1160m to 1300m (Rare).

**Part(s) and local uses:** Seed against blood dysentery (Mi).

**Form of use:** Roasted.

**Preparation:** Five mature seeds are roasted in a pan without oil.

**Dose:** Crushed seeds are chewed and take once daily for three days.

**Other uses:** Tender leaves are used as vegetable (DM).

**Uses:** DD

**Exsiccatum:** Salari, 19.12.2003, Kar 44.
Begonia hatacoa Buch.-Ham. ex D.Don, Syn. Begonia rubrovenia Hook. (Begoniaceae).
LN: Chulen-derm-cho (DM).

Descr: Annual herb, 20 to 40cm high; leaves elliptical, acuminate, slightly angular, undulate, pubescent on beneath, base unequal or cordate, lower surface brown; flower whitish with purple veins in axillary peduncles; capsule winged.

Habitat: In moist shady forest floor (Fig. 43).
Regen: By seed.

Fl: Apr. to May; Fr: June to Sept.
Distrib: (a) China, Nepal and Bhutan; (b) Sikkim, Darjeeling; (c) Durgamandir, Sessa and Naychayphu, 900m to 1600m (Common).

Part(s) and local uses: Root against leech bite.
Form of use: Fresh juice.
Preparation: Fresh rhizome is crushed and applied on feet before going to jungle.
Dose: Once daily before going to jungle.
Other uses: Tender leaves and petioles are used as vegetable (DM).
Uses: DD
Exsiccatum: Durgamandir, 10.5.2004, Kar 123.

Begonia inflata Clarke. (Begoniaceae).
LN: Chulen - derm- thong (DM); Chulen-derm (KM).

Descr: Herb upto 1m tall; stem elongate, striped with purple colour, branched; leaves oblong, glabrous, minutely serrate, unequally cordate; male flower white in axillary, dichotomously short branched, cymes; capsules winged, red.

Habitat: In moist shady places along small streams (Fig. 44).
Regen: By seed.
**Fl:** Mar. to May; **Fr:** Apr. to June.

**Distrib:** (a) Kenya, Nepal and Bhutan; (b) Sikkim, Uttaranchal; (c) Durgamandir, Sessa, 900m to 1200m (Rare).

**Part(s) and local uses:** Stem against leech bite.

**Form of use:** Fresh juice extract.

**Preparation:** Fresh juice applied on feet to prevent leech bite.

**Dose:** Once daily before going to jungle.

**Other uses:** DD

**Uses:** DD

**Exsiccatum:** Durgamandir, 10.5.2004, Kar 124.

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**LN:** Sem-dham-mento (DM).

**Descr:** Small or large shurb; leaves elliptic or broadly obovate, usually with large distinct spinous teeth, base gradually narrowed; dense flower in drooping raceme; berry ovoid, blue black, fleshy.

**Habitat:** In scrubs, and along roadside (Fig. 45).

**Regen:** By seed.

**Fl:** July to Aug.; **Fr:** Sept. to Oct.

**Distrib:** (a) Bhutan, Nepal; (b) temperate Himalaya, Garwal to Khasi hills, Nilgiri hills; (c) Mokto, Sangrila, 2300m to 2900m.

**Part(s) and local uses:** Stem against conjunctivitis and hookworm.

**Form of use:** Infusion.

**Preparation:** Two small piece of fresh stem soaked in a cup of water for three hours when the water become yellowish colour is used for both the cases.
**Dose:** Three drops of infusion in both the eyes before going to bed for three days. One cup of infusion after meal for five days against hookworm.

**Other uses:** DD

**Uses:** DD

**Market value:** (b) Rs. 80.00 per kg of dry stem bark.

**Exsiccatum:** Mokto, 8.4.2004, Kar 101.

**Berberis dasyclada** Ahrudt. (Berberidaceae).

**LN:** Sarsing (DM).

**Descr:** Shrub; stem pubescent; leaves elliptic or lanceolate; flowers in fascicles, golden yellow, fragrant; berry red.

**Habitat:** Scrubs and in forest margins (Fig. 46).

**Regen:** By seed.

**Fl:** May to June; **Fr:** June to Aug.

**Distrib:** (a) China, Nepal and Bhutan; (b) Himachal Pradesh, Sikkim, Uttaranchal; (c) Duangba, Sangey, 2400m to 2800m (Rare).

**Part(s) and local uses:** Stem against roundworm.

**Form of use:** Infusion.

**Preparation:** A piece of 5 cm long stem is soaked in one-cup water for over night.

**Dose:** One cup of infusion once daily for seven days.

**Other uses:** DD

**Uses:** DD

**Exsiccatum:** Duangba, 8.4.2004, Kar 104.

**Berberis erythroclada** Hook.f. (Berberidaceae).

**LN:** Kerpa-kanchong (DM).
**Descr:** Shrub; stem ribbed; spines long and pointed; leaves obovate, margin with minute spine, lower surface pale green; flower yellow; berry red oblong to globose.

**Habitat:** Scrubs and along roadsides (Fig. 47).

**Regen:** By seed.

**Fl:** June to July; **Fr:** July to Aug.

**Distrib:** (a) Bhutan, Nepal; (b) Sikkim, Himachal Pradesh; (c) Sangey, 2300m to 2600m (Rare).

**Part(s) and local uses:** Spine against wound.

**Form of use:** Paste.

**Preparation:** Fresh spines are crushed and made into paste.

**Dose:** Applied on affected parts once in daily for three days.

**Other uses:** DD

**Uses:** DD

**Exsiccatum:** Sangey, 7.4.2004, Kar 102.

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**Bidens biternata (Lour.) Merrill & Sheriff,** Syn. *Coreopsis biternata*


**LN:** Aiuappo (N); Khawroga (DM).

**Descr:** Annual herb; stem, grooved; leaves variable, 3- foliolate, ovate, acute; inflorescence head yellow or white; flower ligulate, white or yellow, strap shaped; fruit achene.

**Habitat:** Roadsides and wastelands (Fig. 49).

**Regen:** By seed.

**Fl:** Sept. to Nov.; **Fr:** Dec. to Mar.
**Distrib:** (a) America, Mexico, Brazil, Kenya; (b) Uttaranchal, Himachal Pradesh, Bihar; (c) Seijusa, Bhalukpong, Seppa, Jamiri, Salari, 160m to 1300m (Common).

**Part(s) and local uses:** Leaves against itching.

**Form of use:** Extract fresh juice.

**Preparation:** Fresh leaves are crushed and the juice is applied on itching feet.

**Dose:** Once daily for three days.

**Other uses:** Tender shoots used as vegetable (N).

**Uses:** DD

**Exsiccatum:** Seppa, 25.7.2004, Kar 143.

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**LN:** Sullu-mento (TM).

**Descri:** Spreading mat forming alpine perennial herb; rootstock woody; leaves narrow to elliptic, entire, stipules brown papery; flowers deep pink, numerous on cylindrical spike; capsule minute.

**Habitat:** In open sandy soils on rocky slopes (Fig. 50).

**Regen:** By root and seed.

**FI:** May to July; **Fr:** Aug. to Sept.

**Distrib:** (a) Nepal, Bhutan, China; (b) Kashmir, Himachal, Uttaranchal and Sikkim; (c) Sela 3600m to 3900m (Common).

**Part(s) and local uses:** Flower for digestion.

**Preparation:** Fresh flower chewed and swallowed directly.

**Dose:** Two inflorescence once in daily for ten days.

**Other uses:** Used as fodder for yak (TM).

**Uses:** DD

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![Fig. 50](image_url)
**Exsiccatum:** Sela, 9.5.2004, Kar 121.


**LN:** Bamdor (DM); Shomlin (Ak).

**Descr:** Tall tree, with buttressed trunk, covered with hard sharp, conical prickles; leaves large, leaflets 3-7, entire, lanceolate or oval; flower red; stamen arranged in five bundles; capsule long, ovoid.

**Habitat:** Mixed evergreen forest (Fig. 51).

**Regen:** By seed.

**Fl:** Jan. to Mar.; **Fr:** Apr. to May.

**Distrib:** (a) Sri Lanka, Myanmar; (b) Bihar, Uttar Pradesh, Assam, Tripura; (c) Seijusa, Bhalukpong, Tippi, Seppa, Jamiri, Salari, 160m to 1300m (Common).

**Part(s) and local uses:** Prickle against boils (Ak).

**Form of use:** Dry powder.

**Preparation:** 50gm fresh prickles are grinded and made into powder.

**Dose:** Applied twice daily till cure.

**Other uses:** (a) Fruit fiber used for lamp thread in Gompas (DM).

**Uses:** **Ayurveda:** Roots are used as diuretic, demulcent and astringent to the bowel; flowers are used as blood purifier, useful for spleen, good for leucorrhoea, astringent to the bowel; fruits are used as digestive, stimulent, diuretic, aphrodisiac; gum aphrodisiac, demulcent, astringent, good in diarrhoea, dysentery, menorrhagia.

**Unani:** Gums are astringent, styptic, aphrodisiac, and useful in burning sensation of the body, biliousness, and blood diseases.

**Siddha:** The bark is given as demulcent, emetic and tonic. Externally, it is used as a styptic and also for healing wounds. The gum is credited with astringent, tonic and demulcent properties and is also used for dysentery, haemoptysis in pulmonary tuberculosis, influenza and menorrhagia.
Exsiccatum: Bhalukpong, 12.5.2003, Kar 17.


LN: Laskong (Sher); Risho (TM); Faab-sheng (DM).

**Descr:** Shrub; leaves lanceolate, oblong; flower yellowish white; inflorescence drooping, terminal or axillary spikes; fruit ellipsoid.

**Habitat:** In scrubs and open forest margin (Fig. 52).

**Regen:** By seed.

**Fl:** Sept. to Oct.; **Fr:** Nov. to Dec.

**Distrib:** (a) Sub-tropical and Tropical region of East Asia, Philippines; (b) West Bengal, Himachal Pradesh, Sikkim, Meghalaya, Assam; (c) Shergaon and Mokto, 1950m to 2275m (Rare).

**Part(s) and local uses:** (i) Flower against sinusitis (Sher), and (ii) leaf against tuberculosis (TM).

**Form of use:** (i) Fresh extract (ii) decoction.

**Preparation:** (i) Flowers are crushed and juice is extracted; (ii) 100gm fresh leaves are boiled in one glass of water until it becomes half.

**Dose:** (i) Two drops of extract in each nose twice daily for five days; (ii) half a glass of decoction once daily for fifteen days.

**Other uses:** DD

**Uses:** DD


LN: Popolasheng (TM).
**Descr:** Small tree; leaves trifoliate, large, leaflets broadly ovate, terminal, long stalked, silky haired beneath; flower red in axillary or terminal spike; pod hairy; seed one.

**Habitat:** Roadsides (Fig. 53).

**Regen:** By seed.

**Fl:** May to July; **Fr:** Aug. to Sept.

**Distrib:** (a) Bhutan, Nepal, Myanmar; (b) Sikkim, Meghalaya, Manipur; (c) Mokto, Pamagarh, 2200m to 2300m (Common).

**Part(s) and local uses:** Seeds against eczema.

**Form of use:** Powder.

**Preparation:** Seeds are crushed to powder.

**Dose:** Applied twice daily for six days.

**Other uses:** Flowers used as vegetable; Planted in the boundary as life fencing (TM).

**Uses:** DD


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**Cajanus cajan** (L.), Syn. *Cytisus cajan* L., *Cajanus indicus* Spreng., *Cajanus obcordifolia* Singh. (Fabaceae).

**LN:** Shappu (Ak).

**Descr:** Shrub; leaf compound, leaflets oblong-lanceolate, acute, entire, whitish green beneath, stipule minute; flower in corymbose racemes forming a panicle, yellow; fruit pod blotched with reddish purple streaks.

**Habitat:** Grown in the kitchen garden (Fig. 54).

**Regen:** By seed.

**Fl:** Oct. to Dec.; **Fr:** Jan. to Mar.

**Distrib:** (a) Bangladesh, Pakistan, Sri Lanka; (b) Bihar, Uttar Pradesh; (c) Bhalukpong, Salari, 215m to 1300m (Rare).
Part(s) and local uses: Leaves against jaundice (Ak).

Form of use: Fresh juice.

Preparation: 100gm fresh leaves are crushed and juice is extracted by adding a little amount of water.

Dose: Half a teacup, twice daily, after meals for fifteen days.

Other uses: Seed used as dal (Ak).

Uses: Ayurveda: Seed acrid, astringent to the bowel, anthelmintic, used to treat leprosy; used against mouth ulcers, tumours, bronchitis, vomiting, heart diseases, piles and cough.

Unani: Seed is good for liver; leaves lessen the inflammation, useful in piles and for the teeth.

Exsiccatum: Bhalukpong, 23.5.2005, Kar 274.


LN: Thermum (DM).

Desc: Annual herb; roots long and stout; leaves coriaceous, peduncle short and stout; spike erect, long, oblong, dense flowered; flower yellow, perianth tube hemispheric, lobes short; fruit berry, globose.

Habitat: In dense moist forest floors (Fig. 55).

Regen: By root.

Fl: May to June; Fr: July to Aug.

Distrib: (a) Nepal, Bhutan, China; (b) sub-tropical Himalaya, Meghalaya, Nagaland 1300 to 2100 m; (c) Dirang basti, Bhugan upto, 1650m to 1750m (Rare).
Part(s) and local uses: Inflorescence against diarrhoea and diabetes.

Form of use: Fresh flower directly consume (bitter in taste).

Preparation: Fresh flowers.

Dose: Daily two inflorescence, once in the morning for five days against diarrhoea; daily one inflorescence before meal for thirty days to control diabetes.

Other uses: DD

Uses: DD


LN: Nagpo (TM); Bechakmu (Sher); Garya (Ak).

Descr: Herb; slender, grooved; leaves 8-18cm long, palmately 3-11 partite; leaflets sessile, narrow, lanceolate, serrate, lower surface pale green, hairy; short dense cymes uniting into a lax foliate terminal panicle; female flowers light green, solitary, in the axils; achene smooth, shining.

Habitat: In open places along roadsides and in open fields (Fig. 56).

Regen: By seed.


Distrib: (a) South Asia, Africa, Mexico, Central and South America; (b) Uttar Pradesh, Madhaya Pradesh, Tamil Nadu, Kerala, Rajasthan, Bihar, Orissa, West Bengal, Assam, Himachal Pradesh, Sikkim; (c) Bhalukpong, Rupa, Seppa, Jamiri; 215m to 1150m (Common).

Part(s) and local uses: Leaves as sleeping tablet and to stabilize mind (TM).

Form of use: Tablet.
**Preparation:** 50gm fresh leaves are crushed and made into paste, which is then made into fifteen tablets of equal size.

**Dose:** Once in two alternative days for fifteen days.

**Other uses:** Inflorescence used as fumigatory (Ak).

**Uses: Ayurveda:** Leaves used in mental disorder.

**Market value:** (c) Rs. 1090.00 per lit of seed oil.

**Exsiccatum:** Jamiri, 14.5.2003, Kar 18.

*Capsicum grossum Willd.* (Solanaceae).

**LN:** Yamdok (N).

**Descr:** Herb; leaves alternate, elliptical; flower white; berry wrinkle conical, ovoid, very pungent with agreeable fragrance.

**Habitat:** Introduced for cultivation (Fig. 57).

**Regen:** By seed.

**Fl:** Jan. to Apr.; **Fr:** May to July.

**Distrib:** (a) Myanmar, Bangladesh; (b) Assam, Nagaland, Manipur; (c) Seijusa, Bhalukpong, Dirang, Seppa, Bomdila, 215m to 2700m (Common).

**Part(s) and local uses:** Fruit against gastritis.

**Form of use:** Fresh fruit.

**Preparation:** Fresh fruits eaten directly.

**Dose:** Two fruits once in daily with meal for fifteen days.

**Other use:** Used as spice in curry and in chutney (N).

**Uses:** DD

**Market value:** (a) Rs. 40.00 per kg of fresh fruit at Seppa market.
(b) Rs. 90.00 to 110.00 per kg of fruit powder.

**Exsiccatum:** Seppa, 20.5.2005, Kar 223.
Carica papaya L., (Caricaceae).

LN: Khulumu (Ak).

Descr: Shrub; trunk with distinct leaf scars; leaves palmatifid, spirally arranged; flowers on axillary panicles, pale yellow, dioecious, occasionally few female flowers on a male plant, male flowers in long drooping panicles, female flowers in short clusters; fruit succulent, indehiscent; seeds numerous, white, pungency smell when ripened become black.

Habitat: Grown in gardens (Fig. 58).

Regen: By seed.

Fl: May to July; Fr: July to Nov.

Distrib: (a) Native of West Indies, shores of Gulf, Mexico, Brazil; (b) Bihar, Uttar Pradesh, Punjab, Tamil Nadu, Kerala, West Bengal, Assam; (c) Seijusa, Bhalukpong, Tippi, 160m to 240m (Common).

Part(s) and local uses: Seeds of unripe fruit against pinworm.

Form of use: Paste.

Preparation: 25 gm fresh seeds of unripe fruits are made into paste.

Dose: 25 gm paste taken once daily with meal for five days.

Other uses: Ripe fruit edible (Ak).

Uses: Ayurveda: Ripe fruit astringent to the bowel, aphrodisiac, removes biliousness, cures insanity, seed used against intestinal worm.

Unani: Ripe fruit stomachic, appetizer, digestive, carminative, diuretic, cures inflammations, relieves obesity, bleeding of piles, wounds of the urinary tracts, useful in ringworm, skin disease, psoriasis.

Market value: (a) Rs. 20.00 per kg of fruit at Seijusa.

(b) Rs. 15.00 to 20.00 per kg of ripe fruit.

(c) Rs. 1628.00 per kg of leaves powder.

**Cassia alata** L., (Caesalpiniaceae).

LN: Takai Tari (N).

**Descr:** Perennial shrub, 1.5 m to 2.8 m tall; leaves pinnate, leaflets 10-12 pairs, obovate to oblong, glabrous; flowers bright yellow, in racemes; fruit pod, broad, flat, both sides winged.

**Habitat:** Roadsides, open wastelands (Fig. 59).

**Regen:** By seed.

**Fl:** May to Sept.; **Fr:** Aug. to Oct.

**Distrib:** (a) Pappua New Guinea, Malaysia, West Indies, South America; (b) Assam, Manipur, Tripura, West Bengal, Uttar Pradesh, Uttaranchal; (c) Seijusa and Bhalukpong, 160m to 215m (Rare).

**Part(s) and local uses:** Leaves against skin diseases.

**Form of use:** Fresh extract of leaves.

**Preparation:** Required amount of leaves are crushed and juice is extracted.

**Dose:** Juice is rubbed on the affected parts, once daily for ten days.

**Other uses:** DD

**Uses:** Ayurveda: Leaves used against cough, asthma, ringworm, skin diseases and also as vermicides.

**Market value:** (b) Rs. 12.00 per kg of dry leaves.


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LN: Palakarpo tochay (TM); Sasi (N); Donigori (Mi).

**Descr:** Herbs with foetid smell; leaves obovate, leaflets three pairs; flower yellow; pod cylindrical.

**Habitat:** Open roadsides (Fig. 60).

**Regen:** By seed.

Distrib: (a) China, Japan, Korea, Indonesia, Bangladesh, Brazil; (b) Assam, West Bengal, Bihar, Orissa, Maharastra, Punjab; (c) Seijusa, Bhalukpong, Tipi, Seppa, Bana, Salari, 160m to 1300m (Common).

Part(s) and local uses: Fruits against cough and dysentery (TM); (DM).

Form of use: Decoction of dry fruit.

Preparation: Two dry fruits are boiled in one-cup of water until it becomes half, then the residue is sieved out.

Dose: Half a teacup, once daily, for three days for both the cases.

Other uses: Tender leaves are used as vegetables (N).

Uses: Unani: Fruits used to treat fever and diarrhoea.


LN: Watsay pesu (Aka, Mi); Gijing garang (N).

Descr: Annual creeping herb producing roots in each node; leaves reniform, margin crenate, petiole long; flower very small, light purple; petals obtuse imbricate; cremocarp ovoid, much thickened.

Habitat: In open places along roadsides, forest margins and in paddy fields (Fig. 61).

Regen: By root.

FI: June to Aug.; Fr: May to Sept.

Distrib: (a) Cambodia, Laos, Japan, Indonesia, Malaysia, Sri Lanka; (b) Assam, Meghalaya, Tripura, West Bengal, Orissa, Bihar, Madhaya Pradesh; (c) Seijusa, Bhalukpong, Jamiri, Salari, Bana, Seppa, Bameng, 160m to 1350m (Common).

Part(s) and local uses: Whole plant against dysentery and pneumonia (Ak).
Form of use: Paste.

Preparation: About 100gm whole plants are made into paste and consume with rice.

Dose: Once daily for three days against dysentery and twice daily for twenty days for pneumonia.

Other uses: Used as chutney (N).

Uses: Ayurveda: The plant is used for the treatment of leprosy and skin diseases and also to improve memory, as an antidote to cholera, and in bronchitis, asthma, gastric trouble, cataract, leucorrhea, kidney troubles, urethritis and dropsy.

Siddha: Plant helps to improve memory, increases concentration and intellectual ability in children.

Market value: (b) Rs. 23.00 per kg of dry plant and Rs. 20.00 per kg of dry root.
(c) Rs.1628.00 per kg of dry powder.

Exsiccatum: Bana, 6.5.2003, Kar 13.

*Cinnamomum tamala* Nees. (Lauraceae).

LN: Sheng tsa (TM).

Descr: Small tree; leaves opposite, subopposite or alternate, ovate-lanceolate or oblong, acuminate, 3 - nerved from base to apex; flower pale yellow, in axillary and terminal lax panicles; fruit drupe.

Habitat: In dense evergreen forests (Fig. 62).

Regen: By seed.

Fl: Feb. to Apr.; Fr: May to June.

Distrib: (a) Bangladesh, Sri Lanka, Myanmar; (b) Tropical and Sub-tropical Himalaya, 900m-2500 m, Khasi hills, 900-1300m, Assam; (c) Nafra, Kalaktang, Salari, Morsing, Jigaon, Shergaon, 1029m to 1950m (Common).
**Part(s) and local uses:** Leaves to reduce body fat and generate blood corpuscles.

**Form of use:** Infusion.

**Preparation:** Four dry leaves after crushed soaked for overnight in a glass of water.

**Dose:** Once daily morning in on empty stomach for a month reduce body fat and generate blood corpuscles.

**Other uses:** Leaves used to flavour tea and curries (TM).

**Uses:** *Ayurveda:* Leaves useful in scabies, disease of the anus and rectum, piles and bad taste.

*Unani:* Leaves used as brain tonic, and anthelmintic, diuretic, good for the liver and spleen, sore eyes, odoema, stops salivation.

**Market value:** (a) Rs. 5.00 per kg of fresh leaves at Jigaon.

(b) Rs. 23.00 per kg of dry leaves.

**Exsiccatum:** Kalaktang, 21.10.2004, Kar 158.

*Cinnamomum zeylanicum* Breyn., (Lauraceae).

**LN:** Chinchu (KM); Gangchulu (Sher).

**Descr:** Medium sized tree; bark thick, smooth.; leaves opposite or sub opposite, ovate or ovate lanceolate, acuminate; flower numerous; white; fruit oblong.

**Habitat:** Grown as cash crop (Fig. 63).

**Regen:** By seed.

**Fl:** June to July; **Fr:** Aug. to Sept.

**Distrib:** (a) Myanmar, Malaysia, Sri Lanka; (b) Kerala, Karnataka, Tamil Nadu; (c) Salari, Nafra, Shergaon, Kalaktang, Morsing, Shergaon 1029m to 1950m (Common).
Part(s) and local uses: Root bark against gastritis and improve taste (KM); (Sher).

Form of use: Infusion.

Preparation: 25gm crushed bark soaked for six hour in one-cup of water.

Dose: One cup, once daily, for fifteen days for both the cases.

Other uses: Bark used as spice (Sher).

Uses: Ayurveda: Bark is used as aphrodisiac, anthelmintic and tonic, and also useful for bronchitis, diarrhoea, itching, diseases of heart and rectum, urinary disease; oil styptic, carminative, useful in loss of appetite, flatulence, vomiting, toothache.

Unani: Bark is used as tonic, carminative, aphrodisiac, improve salivation, cure headache, hiccough, piles, scorpion sting, strengthen liver; oil carminative, liver tonic, useful in inflammations, abdominal pains and bronchitis.

Market value: (a) Rs. 40.00 to Rs. 50.00 per kg of dry stem bark at Salari, Kalaktang, and Shergaon area.
(b) Rs. 55.00 to 60.00 per kg of dry stem bark.
(c) Rs. 1428.00 per lit of bark oil.


Cirsium falconeri (Hk.f.) Petrak. (Asteraceae).

LN: Maselu mento (TM).

Descr: Herb; radical leaves petioled, linear, cauline leaves deeply pinnatified, lobes with spine, unequal, linear, white, tomentose beneath, auricled; head purple, receptacle bristles; achene obovoid.

Habitat: In open places along roadsides (Fig. 64).

Regen: By seed.

Fl: June to Aug.; Fr: Sept. to Oct.
**Distrib:** (a) Afghanistan, Pakistan and Nepal; (b) Jammu & Kashmir, Himachal Pradesh, Sikkim, Uttaranchal; (c) Sangrila, Baisakhi, Jaswanth garh, 2980m to 3000m (Rare).

**Part(s) and local uses:** Flower to generate blood corpuscles.

**Form of use:** Directly consumed.

**Preparation:** By removing thorns and insect the flower is washed in water.

**Dose:** Two flower once daily for twenty days.

**Other use:** DD

**Uses:** DD

**Exsiccatum:** Jaswant Garh, 17.5.2005, Kar 198.


**LN:** Chuluk mazappa (KM);
Chumrep (TM).

**Descr:** Shrub; leaves alternate, entire, aromatic, gland dotted; flower white, tinged with purple; fruit with aromatic glands.

**Habitat:** In scrubs and forests (Fig. 65).

**Regen:** By seed and stem cutting.

**Fl:** Apr. to May; **Fr:** June to July.

**Distrib:** (a) China, Nepal, Eastern Africa; (b) Maharastra, Sikkim, Meghalaya, Assam; (c) Bhalukpong, Bana, Pompoli, Seppa, Kalaktang, Jamiri, 215m to 1160m (Rare).

**Part(s) and local uses:** (i) Fruit juice against indigestion (TM); (ii) Rind against headache (KM).

**Form of use:** (i) Juice, (ii) Dry rind.
Preparation: (i) Two teaspoonful of fresh fruit juice mixed with one tea cup of water and a pinch of salt then stir, (ii) Dry rind made into small pieces.

Dose: (i) One cup, once daily, for three days; (ii) A small piece is taken and chewed after meals, daily thrice for five days.

Other uses: Used as refreshing drink.

Uses: Ayurveda: Fruit juice useful in dysentery.

Market value: (a) Rs. 2.00 per fruit at Seppa.
(b) Rs. 1.00 per fruit.

Exsiccatum: Bhalukpong, 16.5.2004, Kar 126.


LN: Rubam (Ak).

Descr: Small tree; leaves alternate, petiole winged, elliptical; flower white; fruit large, globose with oil gland.

Habitat: Hilly slopes (Fig. 66).

Regen: By seed.

Fl: July to Aug.; Fr: Sept. to Nov.

Distrib: (a) China, Bangladesh, Malaysia, Myanmar; (b) West Bengal, Tripura, Assam, (c) Seijusa, Bhalukpong, 160m to 230m (Occasional).

Part(s) and local uses: Fruit rind against cough and as appetizer.

Form of use: Dry rind.

Preparation: Rind mixed with salt then dried under sunlight.

Dose: Two small pieces twice daily after meals for seven days against cough; one small piece chewed, thrice daily, before meals for fifteen days as appetizer.

Other uses: Fresh rind consumed with salt (Ak)
Uses: **Ayurveda:** Fruits are nutritive, refrigerant; good in leprosy, asthma, cough, hiccough and epilepsy.

**Unani:** Fruits are cardiotonic; good in chest complaints; rind used in anthelmintic and as brain tonic; useful in vomiting, griping of abdomen, diarrhoea, headache and eye troubles.

**Market value:**
(a) Rs. 10.00 per fruit at Bhalukpong.
(b) Rs. 5.00 per fruit.

**Exsiccatum:** Bhalukpong, 16.5.2004, Kar 128.

*Cladonia rangiferina (L.) Wigg* (Cladoniaceae).

**L.N:** Drakpu/Dodek (DM).

**Descr:** Fruticose lichen; thallus dimorphic; primary or vegetative thallus crustose to sub-foliose, heteromerous; corticated on upper surface and ecorticate on lower surface; algal partner green algae; dense form of fungal vertical hyphae developed into erect branches; fruiting body apothecia saucer-shaped.

**Habitat:** In rock crevices and moist soils (Fig. 67).

**Regen:** By apothecia.

**Fr (b):** Sept. to Nov.

**Distrib:** (a) Bhutan; (b) Sikkim; (c) Naga, 1200m to 1300m (Rare).

**Part(s) and local uses:** Whole plant against kidney stone.

**Form of use:** Pills.

**Preparation:** 200 gm dry plant made into powder by adding a little amount of water and made into a paste, which is then converted into pills of about 10 gm each.

**Dose:** Once daily one tablet after meal for sixty days.

**Other uses:** Dry plant used in incense preparation (DM).
**Clerodendrum colebrookianum** Walp., (Verbenaceae).

**LN:** Pappu Ato (N); Jylon (Ak).

**Descr:** A shrub; leaves opposite, broadly ovate, base cordate, serrate; flowers in terminal compact corymbose cymes; drupe green, when ripe become blue.

**Habitat:** Shrubs in open places along roads (Fig. 68).

**Regen:** By seed and root.

**Fl:** May to June; **Fr:** July to Aug.

**Distrib:** (a) Singapore, China, Japan, Bangladesh, Myanmar; (b) Jammu & Kashmir and Meghalaya, Assam, Mizoram, Tripura, Nagaland, Manipur; (c) Seijusa, Bhalukpong, Tippi, Seppa; 160m to 400m (Common).

**Part(s) and local uses:** Tender shoot against malaria and high blood pressure.

**Form of use:** Boil.

**Preparation:** Three young shoot boil for fifteen minutes.

**Dose:** Once daily for sixty days against high blood pressure; twice daily for fifteen days.

**Other uses:** Leaves used as vegetables (N & Ak).

**Uses:** DD

**Market value:** (a) Rs. 10.00 per bundle of tender shoot at Seppa market.

**Exsiccatum:** Seppa, 10.1.2004, Kar 55.

**Clerodendrum viscosum** Vent., Syn. **Clerodendrum infortunatum** auct.non. L: Cl.; **Clerodendrum infortunatum** L., (Verbenaceae).

**LN:** Poto tayo (N).
**Descr:** Shrub; leaves ovate, opposite, dentate, hairy; flower white with pink centre, stamens exerted, mild sweet scented, in large lax branched clusters; fruit black when ripe covered by red calyx.

**Habitat:** Roadsides, scrubs, grassland (Fig. 69).

**Regen:** By seed.

**Fl:** Mar. to June; **Fr:** July to Aug.

**Distrib:** (a) Singapore, Sri Lanka, Malaysia, Bangladesh, Nepal, Bhutan; (b) Himachal Pradesh, Madhya Pradesh, Bihar, Chattisgarh, Uttar Pradesh, West Bengal, Sikkim, Assam, Tripura; (c) Bhalukpong, Seijusa, Seppa, 300m to 450m (Common).

**Part(s) and local uses:** Tender shoot against malaria.

**Form of use:** Fresh juice extracted.

**Preparation:** Tender leaves are crushed and juice is extracted. Extract is boiled for five minutes then keep it for a while for cooling.

**Dose:** Half tea cup daily once after meal for seven days.

**Other uses:** Leaves used in local liquor preparation (N).

**Uses:** DD

**Market value:** (c) Rs. 440.00 per kg of leaves powder.

**Exsiccatum:** Seijusa, 10.1.2004, Kar 56.

**Colocasia esculenta (L.) Schott**, Syn. *Arum esculentum* L.; *Colocasia antiquorum* Schott. (Araceae).

**LN:** Blau (Ak).

**Descr:** Herb, 30 to 60cm. high; leaves 10 to 30 cm, base hastate, margin wavy; female flower at the base of inflorescence, followed by neuters and male flowers, hooded by a spathe, 20 to 45cm, yellow, boat like above and bulb like beneath.

**Habitat:** Roadsides, on the side of briddle paths (Fig. 70).

**Regen:** By rhizome.
Fl: July to Aug.; Fr: Sept. to Nov.

**Distrib:** (a) Sri Lanka, Nepal, Pakistan, Myanmar, Bangladesh; (b) Assam, Meghalaya, West Bengal, Orissa, Bihar, Kerala, Karnataka; (c) Seijusa, Seppa, Bana, Durgamandir, Bhalukpong, Rupa, Jamiri, Kitpi, 160m to 2400m.

**Part(s) and local uses:** Petiole to stop bleeding in minor cuts; leaves and petiole generating blood corpuscles and act as blood purifier.

**Form of use:** (i) Juice of fresh petiole; (ii) boil.

**Preparation:** (i) Juice applied to cuts; (ii) leaves and petiole boiled for half an hour to which one drop of lemon juice added to avoid irritate taste.

**Dose:** (i) As much quantity as required; (ii) 100 gm twice daily in a week for seven week.

**Other uses:** Leaves, and spathe used as vegetable.

**Uses:** DD

**Exsiccatum:** Seppa, 10.1.2004, Kar 57.

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**Commelina benghalensis** L., (Commelinaceae).

**LN:** Doyhi pipi (N).

**Descr:** Annual herb; creeps along the ground producing roots in each node; leaves lanceolate to ovate, wavy, lower surface hairy, leaf base form into sheath around the stem; flower in axillary and terminal cymes, blue; fruit capsule or berry, trigonous.

**Habitat:** In open moist places (Fig. 71).

**Regen:** By root.

**Fl:** Sept. to Nov.; **Fr:** Dec. to Feb.

**Distribution:** (a) Sri Lanka, China, tropical Asia, Congo, Kenya; (b) Assam, Meghalaya, Tripura, West Bengal, Sikkim; (c) Seijusa, Bhalukpong, Tipi, Seppa, 160m to 400m.

**Part(s) and local uses:** Stem and leaves against bone fracture.
**Form of use:** Paste.

**Preparation:** Required quantity of whole plant is taken and crushed into paste.

**Dose:** The paste is applied on the affected part and wrapped with cloth and is kept for twenty days.

**Other uses:** DD

**Uses:** Ayurveda: Plant used in leprosy.

**Exsiccatum:** Seppa, 10.1.2004, Kar 58.

**Coptis teeta** Wall., (Ranunculaceae).

**LN:** Yang Che Mray (TM).

**Descr:** Annual herb; rhizome horizontal, yellow, thread like, bitter; leaflets ovate-lanceolate; flower white tinge with purple; follicle elliptical.

**Habitat:** Hilly slope (Fig. 72).

**Regen:** By rhizome.

**Fl:** Apr. to May; **Fr:** May to July.

**Distrib:** (a) Endemic to India; (b) Endemic to mountainous temperate regions of West Bengal, Sikkim and Arunachal Pradesh; (c) Duangba and Naffa of West Kameng district 2200m to 2700m (Rare).

**Part(s) and local uses:** Rhizomes against stomach pain, malaria and pain relief during delivery.

**Form of use:** Decoction.

**Preparation:** 25 gm dry rhizome is boiled in two teacups of water until it become half.

**Dose:** One teacup daily once for two days in stomach pain, seven days in malaria and five days in pain.
Other uses: DD
Uses: DD
Market value: (a) Rs. 200.00 per kg of dry rhizome.
(b) Rs. 900.00 per kg of dry rhizome.
Exsiccatum: Duangba, 10.10.2004, Kar 155.

Coriandrum sativum L., (Apiaceae).
LN: We (TM).
Descr: Annual herb; upper leaves short petioled or sub sessile, 2-3pinnatisect to linear setaceous lobes, lower leaves petioled, imparipinnatisect into 2-3 pairs of ovate- cuneiform, obtuse, incised dentate segments; inflorescence umbels, 5-10 rayed; flower whitish and blue dinged; fruits globular, ribbed.
Habitat: Grown in the kitchen garden (Fig. 73).
Regen: By seed.
Distrib: (a) Israel, Native of Mediterranean region Palestine, Syria, Morocco, Mesopotamia, Greec, Hungery, Poland, Romania, Mexico, USA, Russia; (b) cultivated in Rajasthan, Maharastra, Gujrat, Karnataka;(c) Seijusa, Seppa, Bana, Pompoli, Bameng, Pappu valley, Chayangtajo, Rupa, Kalaktang, Shergaon, Morsing, Salari, Nafra, Bomdir, Mokto, Kitpi, Tawang, 160m to 3200m (Common).
Part(s) and local uses: Leaves used against stomach pain and for digestion.
Form of use: Paste for both the cases.
Preparation: 25gm fresh leaves are made into paste.
Dose: Twice daily for three days against stomach pain; once daily for seven days with meal for digestion.
Other use: Leaves used in chutney and curry (TM).
Uses: Ayurveda: Fruits are used as diuretic, antipyretic, stomachic, aphrodisiac, stimulant, laxative, anthelmintic, appetizer, cures biliousness, bronchitis, vomiting, whole plants used against dysentery.

Unani: Leaves used as analgesic, useful in hiccough, piles, inflammation and pain in the eyes, jaundice, stomatitis, toothache, bleeding of the gums, scabies, and tuberculosis. Seed aphrodisiac, tonic to the brain, heart and liver, used against bronchitis, syphilis, dyspepsia, headache, biliousness, applied to the ulcers on the penis. Fruit used against gastritis, weakness of brain, heart stomach and useful in diarrhoea and melanocholia.

Siddha: The fruits are considered as carminative, diuretic, tonic, stomachic, antibilious, refrigerant and aphrodisiac.

Market value: (a) Rs. 2.00 per 100gm of leaves.
(b) Rs.30.00 per kg of dry seed.
(c) Rs. 4173.00 per lit of seed oil.


Costus speciosus (Koenig) Sm., Syn. Banksia speciosa Koenig.; Costus speciosa var. nepalensis (Rosc.) Baker., (Costaceae).

LN: Romodugo (Ak).

Habitat: In dense forest, scrubs (Fig. 74).

Regen: By rhizome.

Descr: Shrub; rootstock tuberous, white; leaves subsessile, spirally arranged, oblong, acute, pubescent; flowers white in dense spikes, bracts ovate, red; capsule globose, 3gonous red.

Fl: June to Aug.; Fr: Aug. to Sept.

Distrib: (a) China, Malaysia, Sri Lanka; (b) Tropical to sub tropical Himalaya, Uttar Pradesh, West Bengal, Assam, Sikkim; (c) Seijusa, Bhalukpong, Tippi, Durgamandir, Jamiri, Bana, Paliji, Seppa, Sessa; 160m to 1250m (Common).
Part(s) and local uses: Rhizome against jaundice.

Form of use: Decoction.

Preparation: Two fresh rhizome crushed and boiled in two glass of water until become half.

Dose: One glass of decoction daily once for fifteen days.

Other uses: Stem taken as a substitute of water (Ak).

Uses: Ayurveda: Rhizome used in Bronchitis, fever, anaemia, rheumatism and hicough.


LN: Gayang (N), Simsap sampur (Sher).

Descr: an annual herb, 0.6m-1m high; stem grooved, pubescent; leaves lobed or lacerate (divided) pubescent; inflorescence head red; flowers very small, white; fruit cypsella with fine hairs on top.

Habitat: Roadsides, hill slopes (Fig. 75).

Regen: By seed.


Distrib: (a) America, China, Malaysia, Nepal;
(b) Assam, Meghalaya, Sikkim, Nagaland, Tripura;
(c) Bhalukpong, Tippi, Seppa, Jamiri, 215m to 1160m (Common).

Part(s) and local uses: Tender shoot for digestion.

Form of use: Boil.

Preparation: Two tender shoots are boiled in water for ten minutes.

Dose: Two shoots once daily for five days.

Other uses: Leaves used for catching fish (Sher).

Uses: DD

**Crawfurdia speciosa Wall.** (Gentianaceae).

**LN:** Yegla-raba (TM).

**Descr:** Climbing herb; stem slender; leaves opposite, elliptic, strongly three veined; flowers blue to purple, large, drooping, borne in axillary stalked clusters, tubular bell shaped; root brownish yellow with clustered moniliform rootlet.

**Habitat:** Roadsides (Fig. 76).

**Regen:** By seed and root.

**Fl:** June to Aug.; **Fr:** Sept. to Oct.

**Distrib:** (a) Nepal, Myanmar and Tibet region of China, Bhutan; (b) Sikkim, Himachal Pradesh, Sikkim; (c) Tawang, 2800m to 3200m (Common).

**Part(s) and local uses:** Root against Tuberculosis.

**Form of use:** Root decoction.

**Preparation:** 100gm fresh root is boiled in three glass of water until quantity become half.

**Dose:** Half glass of decoction thrice daily for ten days for both the cases.

**Other uses:** As ornamental in Tawang.

**Uses:** DD

**Exsiccatum:** Tawang, 12.2.2004, Kar 61.

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**Cucurbita pepo L.** (Cucurbitaceae).

**LN:** Brumsha (TM).

**Descr:** Large climbing herbs; tendrils 2-4 fid; leaves five lobed, sinus between the lobes broad; flower yellow; fruit flesh pepo; seeds ovoid or oblong, white, lance shaped.

**Habitat:** Planted in kitchen garden (Fig. 77).

**Regen:** By seed.
**Fl**: June to Aug.; **Fr**: Sept. to Oct.

Distrib: (a) America, Brazil, Kenya, Sri Lanka, China, Japan; (b) Bihar, Uttar Pradesh, Gujarat, Maharashtra, Kerala, Assam, West Bengal; (c) Seijusa, Seppa, Bana, Pompoli, Bameng, Pappu valley, Chayangtajo, Rupa, Morsing, Salari, Nafra, Bomdir, Mokto, Kitpi, Tawang, 160m to 3200m (Common).

**Part(s) and local uses**: Seeds for vitality.

**Form of use**: Seed powder.

**Preparation**: 100gm dry seed is grinded after removing outer seed coat and made into powder.

**Dose**: Twice daily for fifteen days after meal and 25gm of powder with one-drop honey is advised to take.

**Other uses**: (i) Fruit, flower, leaf used as vegetable (TM), (DM), (KM), (N), (Mi) (Sher).

**Uses**: *Ayurveda*: Fruit cooling, astringent to the bowels; appetizer, cures leprosy, and used as blood purifier.

**Unani**: Leaves used as digestive, haematinic, analgesic, remove biliousness, fruits are used as cooling, laxative, good for teeth, throat and eyes, rind used in piles, applied to wounds, seeds are diuretic, tonic, fattening, cure sore chest, haemoptysis, bronchitis, fever, good for the kidney and brain.

**Market value**: (a) Rs. 5.00 to 10.00 per kg of fruit at Bomdila, Tawang, Seppa and Rupa market.

(b) Rs. 10.00 to 15.00 per kg of fruit.

**Exsiccatum**: Bomdir, 12.2.2004, Kar 62.

*Curcuma aromatica* Salisb., (Zingiberaceae).

**LN**: Takhi Kaychu (N); Thekshadu (Ak); Gising (Mi).
Descr: Binnial herb; rhizome branched, yellow and aromatic; leaves oblong-elliptic or oblong - lanceolate, caudate to acuminate, green; flower fragrant in spike, pale rose, lip yellow.

Habitat: In dense moist forest floor (Fig. 78).

Regen: By rhizome.

Fl: Apr. to July; Fr: Aug. to Nov.

Distrib: (a) Australia, Myanmar, Malaysia, Sri Lanka; (b) Assam, West Bengal, West Peninsula, Meghalaya, Manipur, Tripura; (c) Bhalukpong, Tippi, Seppa, Jamiri, 215m to 1160m (Common).

Part(s) and local uses: Rhizome against gastritis (N), and against wound (M).

Form of use: Paste.

Preparation: Rhizomes are crushed and made into paste, which is mixed up with a cup of water. Prepared paste applied on the affected parts of wound.

Dose: One cup, once daily for five days after meal against gastritis. Applied once daily for three days against wound.

Other uses: Plant used in religious ceremonies (Ak).

Uses: Ayurveda: Rhizome used as appetizer, used against blood diseases and leucoderma.

Market value: (b) Rs. 22.00 per kg of dry rhizome.


LN: Thekshadu (Ak).
**Descr:** Erect perennial herb, ±1m tall; root fleshy, primary tubers ellipsoidal, rhizome branched, brownish white, scaly externally and bright yellow inside; leaves long, lanceolate, acuminate; pale yellow flowers in cylindrical spike; fruits elliptical, rare.

**Habitat:** Grown as cash crop (Fig. 79).

**Regen:** By rhizome.

**Fl:** Apr. to July; **Fr:** Aug. to Nov.

**Distrib:** (a) Java, Sri Lanka, East Africa, West Africa, Indonesia; (b) West Bengal, Andhra Pradesh, Kerala, Tamil Nadu, Orissa, Bihar, Assam, Karnataka; (c) Seijusa, Bhalukpong, Tippi, Seppa 160m upto 400m (Common).

**Part(s) and local uses:** Rhizome against pinworm.

**Form of use:** Powder.

**Preparation:** Powder is consumed with cooked rice.

**Dose:** One table spoonful of powder daily once for fifteen days.

**Other uses:** Rhizome powder used as spice (Ak).

**Uses:** **Ayurveda:** Rhizome is used as anthelmintic, tonic, emollient and in blood disease, leucoderma, scabies, urinary discharges, bad taste in the mouth, biliousness, dyspepsia, elephantiasis, snake bite, small pox, swellings, boils, bruises and sprain.

**Unani:** Rhizome is used as carminative, diuretic, good for liver, urinary discharges, scabies and bruises.

**Market value:** (a) Rs. 60.00 per kg of fresh rhizome at Seppa market.

(b) Rs. 35.00 to 40.00 per kg of dry rhizome.

(c) Rs. 1210.00 per lit of root oil and Rs. 1008.00 per lit of leaf oil.

**Exsiccatum:** Bhalukpong, 14.2.2004, Kar 64.

*Cuscuta reflexa* Roxb. Syn *Cuscuta santapaui* Banerji & Das.

*(Convolvulaceae).*
LN: Tacha (N); Sher Thake (Mi/DM); Dolchak Chula (TM).

Descr: Herbaceous parasite; stem slender, twining, golden yellow; flower small white, style 1, stigma ovoid.

Habitat: Parasitic climber on road side shrubs and trees (Fig. 80).

Regen: By seed.

Fi: Nov. to Jan.; Fr: Feb. to Apr.

Distrib: (a) Malaysia, Sri Lanka, Myanmar; (b) Orissa, Kerala, West Bengal, Assam, Sikkim, Tripura, Manipur, Nagaland; (c) Seijusa, Bana, Seppa, Pappu valley, Bhalukpong, Tipi, Rupa, Kalaktang, Jamiri, Salari, Nafra, Mokto, Kitpi, Pamagarh, 160m to 2300m (Common).

Part(s) and local uses: Stem against (i) bone fracture (N); (ii) jaundice (DM), and (iii) reduce excess body water (TM).

Form of use: Fresh plant extracts and paste.

Preparation: Fresh stems are crushed and juices are extracted for jaundice and reduce excess body water; stem paste for bone fracture.

Dose: One table spoon twice daily for seven days, for (ii) and (iii), paste is used for applying bandage on the affected part with the help of banana leaf and the application is left for four days which is changed on every four alternate days for thrice.

Other uses: DD

Uses: Ayurveda: Plant is used as astringent to the bowels, aphrodisiac, tonic and also against eye and heart disease.

Unani: Used as carminative, tonic, anthelmintic, purgative, diuretic, blood purifiers and also used for jaundice, muscles and joint pains, headache, paralysis, spleen disease, vomiting; seeds are useful for liver and the spleen, chronic fevers, griping, hiccough, infusion in ophthalmia.

**Cyathea gigantea** (Wall. ex Hook. f.) Holt. (Cyatheaceae)

LN: Tachay Tanya (N).

**Descr.** Evergreen fern tree from 5 to 8 m tall and 50cm girth; leaves branched in the manner of a feather, leaf stalk hairy; spore dot shaped, on the lower surface of the pinna, brown.

**Habitat:** In tropical primary dense forest (Fig. 81).

**Regen:** By spore.

**Spore:** Oct. to Dec.

**Distrib:** (a) Nepal, Bhutan, China, Myanmar, Indonesia, Malaysia; (b) Sikkim, Meghalaya, Assam, Mizoram, Tripura, Nagaland, Manipur; (c) Seijusa, Bhalukpong, Tippi, Sessa, Jamiri, Seppa, Bameng, 160m to 1350m (Common).

**Part(s) and local uses:** Stem pith against eczema.

**Form of use:** Paste.

**Preparation:** 50 gm fresh pith crushed and made into paste.

**Dose:** Affected parts are massaged with the paste once daily for ten days.

**Other uses:** Planted in the boundary of house, which keeps away evil power (Taboo of Nishi tribe).

**Uses:** DD

**Exsiccatum:** Bameng, 17.2.2004, Kar 66.

**Cymbopogon citratus** (DC) Stapf. (Poaceae).

LN: Tay (DM).

**Descr.** Tall perennial grass 2 to 3 m hight; leaves linear; flower in panicles, 30-90cm long, flower yellow.

**Habitat:** In forest (Fig. 82).

**Regen:** By root and seed.

**Fl:** July to Aug.; **Fr:** Oct. to Sept.
**Distrib:** (a) Brazil, North Africa, Tibet region of China; (b) Uttar Pradesh, Himachal Pradesh, Sikkim; (c) Mokto, Pamagarh, 2200m to 2300m (Rare).

**Part(s) and local uses:** Leaves against joint pain.

**Form of use:** Fresh juice extract.

**Preparation:** 200 gm fresh leaves crushed and juice extracted and boiled it for five minutes and keep it for while to cool.

**Dose:** Massaged on affected part twice daily for fifteen days.

**Other uses:** DD

**Uses: Ayurveda:** Leaves used as appetizer, anthelmintic, bronchitis and leprosy.

**Market value:** (b) Rs. 250.00 to 300.00 per lit of leaf oil.

**Exsiccatum:** Pamagarh, 20.2.2004, Kar 67.

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**Cynodon dactylon (L.) Pers.** (Poaceae).

**LN:** Meder (N).

**Descr:** Perennial creeping grass; stem slender, prostrate; leaves linear, sheathed, entire, dark green; flower in spikes with purple coloured stigmas; fruit caryopsis.

**Habitat:** In open places along roadsides, paddy fields (Fig. 83).

**Regen:** By root and seed.

**Fl:** Dec. to Mar.; **Fr:** Apr. to May.

**Distrib:** (a) Tropical and Sub tropical region of Asia, Myanmar, Malaysia, Sri Lanka, Australia, Tanzania, Kenya; (b) Tripura, Assam, Manipur, West Bengal, Orissa, Bihar, Kerala; (c) Seijusa, Seppa, Bana, Pompoli, Bameng, Pappu valley, Chayangtajo, Rupa, Morsing, Salari, Nafra, Bomdir, Mokto, Kitpi, Tawang, 3200m (Common).
Part(s) and local uses: Whole plant is used against minor bone fracture.

Form of use: Paste.

Preparation: Required amount of plant made into paste.

Dose: Paste is applied on the affected part and wrapped with the cloth and left for fifteen days.

Other uses: DD

Uses: Ayurveda: Plant is useful in vomiting, burning sensation, bad taste in the mouth, hallucinations and also used against leprosy, scabies, skin disease, dysentery, fever and nose bleeding.

Unani: Plant is used against vomiting, diarrhoea, cobra-bite, burning sensation, disease of the blood, stomatitis, bruises, and hiccough.

Siddha: Decoction of the plant is used as diuretic, and also found useful in dropsy and anasarca. Fresh juice is utilized as astringent, and is applied to bleeding cuts and wounds.


LN: Nyumli mento (TM).

Descr: Herb; leaves cauline and ramal, alternate, glabrous; flower in scorpioid cyme, blue; nutlet with scattered glochidia; root brown, conical shaped.

Habitat: In open sandy soil along roads (Fig. 84).

Regen: By seed.

**Distrib:** (a) Sri Lanka, Myanmar, China; (b) Kashmir, Himachal Pradesh, Sikkim, Meghalaya; (c) Dirang, Mokto, Kitpi, Pamagarh, Tawang, 1500m to 3200m (Common).

**Part(s) and local uses:** Root is used against stomach pain and malaria.

**Form of use:** Decoction.

**Preparation:** Root of mature plant is crushed slightly and then boiled with a glass of water for five minutes.

**Dose:** Half glass once daily for twenty days against malaria and half glass twice daily for two days after meal against stomach pain.

**Other uses:** DD

**Uses:** DD

**Exsiccatum:** Seppa, 20.4.2004, Kar 82.


**LN:** Shayle (TM).

**Descr:** Annual herb about 20cm high; leaves linear; inflorescence globbose head; flower white; fruit achene; root fibrous with tubers.

**Habitat:** In open places along roadsides and bridle paths (Fig. 85).

**Regen:** By tuber.

**Fl:** June to Aug.; **Fr:** July to Sept.

**Distrib:** (a) Japan, Bangladesh, China, Myanmar, Pakistan;
(b) Assam, West Bengal, Punjab, Orissa, Bihar, (c) Seijusa, Bhalukpong, Seppa, Rupa, Dirang, Kitpi, Mokto, 160m to 2275m (Common).

**Part(s) and local uses:** Tubers against blood dysentery.
Form of use: Paste.

Preparation: Ten fresh tubers are crushed into a paste.

Dose: Half teaspoon is used once in daily for five days.

Other uses: DD

Uses: Ayurveda: Tuber is useful in infantile diarrhoea.

Siddha: The tubers are diaphoretic and astringent. Useful in diuretic, anthelmintic, anti-inflammatory, carminative, stomachic, emmenagogue and stimulant.

Market value: (b) Rs. 18.00 to 20.00 per kg of leaves.

(c) Rs. 3192.00 per lit of tuber oil.


Dalbergia sissoo Roxb. ex DC. Syn. D. sissoides Graham ex W. & A.,

Derris latifolia var. sissoides (W. & A.) Baker (Papilionaceae).

LN: Sisu (Ak).

Descr: A big tree; leaves alternate, imparipinnate, suborbicular, acuminate; flower in axillary panicles, yellow; pod thin.

Habitat: Forest (Fig. 86).

Regen: By seed.

Fl: July to Sept.; Fr: Sept. to Dec.

Distrib: (a) Nepal, Pakistan; (b) west Himalaya upto 1200m, Sikkim, Assam; (c) Seijusa, Bhalukpong, Tippi, 160m to 240m (Rare).

Part(s) and local uses: Leaves against wound.

Form of use: Paste.

Preparation: Fifteen fresh leaves are crushed and applied on affected part and bandage is applied with the help of cloth.

Dose: Left the bandage for three days.

Other uses: Timber used in construction (Ak).
Uses: **Ayurveda:** Bark acrid, aphrodisiac, abortifacient, anthelmintic, antipyretic, appetizer, cures skin diseases, useful in troubles of the anus, ulcers, leucoderma, blood diseases, dyspepsia, dysentery; leaf juice is good for eye diseases.

Unani: Wood is used as anthelmintic and also enriches the blood, useful in diseases of the eye and nose, scabies, burning sensation of the body, syphilis, and stomach troubles.

**Market value:** DD

**Exsiccatum:** Bhalukpong, 8.5.2004, Kar 91.


**LN:** Lokta (TM).

**Descr:** Shrub; root hard whitish brown outside and white inner portion; leaves alternate; flower terminal sessile, white; fruit fleshy.

**Habitat:** Forest, hilly slopes (Fig. 87).

**Regen:** By seed.

**Fl:** July to Aug.; **Fr:** Sept. to Oct.

**Distrib:** (a) Nepal and Bhutan; (b) Himachal Pradesh, Sikkim, Meghalaya, Nagaland; (c) Lhou, Bomdir, Duangba; 2300m to 2600m.

**Part(s) and local uses:** Root against food poison.

**Form of use:** Fresh juice extract.

**Preparation:** Fresh root is grinded and juice is extracted.

**Dose:** One tablespoon is taken once in daily after meal.

**Other uses:** (i) Stem bark used to prepare local writing paper (TM).

**Uses:** DD

**Exsiccatum:** Bomdir, 8.5.2004, Kar 92.
**Datura stramonium** L. Syn. *D. stramonium* var. *tatula* (L.) Cl., (Solanaceae).

LN: Jungpso (DM).

**Descr:** Annual herb; leaves alternate, serrate; flower long, white, corolla five toothed; capsule deeply four lobed.

**Habitat:** Roadsides (Fig. 88).

**Regen:** By seed.

**Fl:** Sept. to Nov.; **Fr:** Nov. to Feb.

**Distrib:** (a) Korea, Japan, Indonesia, Malaysia, America; (b) Kashmir to Sikkim upto 8,000 ft, hilly districts of Central & South India, Himachal Pradesh; (b) Salari, Dirang, Saper camp 1300m to 1740m (Common).

**Part(s) and local uses:** Seeds against toothache.

**Form of use:** Smoke of burn seed.

**Preparation:** 10 nos dry seed is burned on fire and smoke of the burning seed is inhaled through mouth.

**Dose:** Once daily in the morning for three days.

**Other uses:** As ornamental plant in the garden (DM).

**Uses:** **Ayurveda:** Seeds used as tonic, febrifuge, anthelmintic, leucoderma, skin disease, ulcers, itching, bronchitis, jaundice, piles and filariasis.

**Unani:** Whole plant is used as aphrodisiac, remove pains of tumours and piles; leaves are used for relieving the eye pain, headache, nose trouble; root are used for reducing inflammation; seeds are useful in febrifuge, anthelmintic, good in inflammation, painfull piles and headache.

**Market value:** (b) Rs. 30.00 per kg of mature fruit.

**Exsiccatum:** Salari, 11.3.2004, Kar 75.

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**Daucus carota** L., (Apiaceae).

LN: Rikigola Phukshing (TM).
Descr: Herb; leaves 2-3 pinnatisect into oblong lanceolate, incised dentate segments; flower in umbel with numerous rays margin white, central flower purple; fruit 4mm with 1-3 recurved barbs.

Habitat: Cultivated in the kitchen garden (Fig. 89).

Regen: By seed.


Distrib: (a) Native of sea coast of south Europe, USA; (b) Cultivated in Kashmir, Himachal Pradesh, Punjab, Haryana, Assam; (c) Salari, Bomdila, Dirang, Mokto, Pamagarh, Tawang, 1300m to 3200m (Common).

Part(s) and local uses: Fruit against madness.

Form of use: Paste.

Preparation: 50gm fruit is made into paste and take with honey.

Dose: Once daily for three months.

Other uses: Root used as vegetable (TM).

Uses: Ayurveda: Root is used as appetizer, astringent to the bowel, antidysenteric, carminative, cardiotonic, cures leprosy, piles, and tumour, and also good for inflammation, asthma, hiccough, expel foul breath.

Unani: Root used as tonic, aphrodisiac, diuretic, stomachic, good for the liver, bronchitis, chest troubles and urinary complaints.

Market value: (a) Rs. 10.00 to 20.00 per kg of root at Tawang market.
(b) Rs. 8.00 to 15.00 per kg of fresh root.
(c) Rs. 3773.00 per lit of seed oil.

Exsiccatum: Tawang, 12.3.2004, Kar 76.


LN: Nang sheng mrep (DM).
Descr: A perennial shrub; leaves opposite, elliptical, lower surface silky, flower minute whitish yellow; fruit fleshy, yellow.

Habitat: Roadsides (Fig. 90).

Regen: By seed.

Fl: May to June; Fr: July to Aug.

Distrib: (a) Afghanistan, Abyssinia, Pakistan, Bhutan, Nepal; (b) Central & Eastern Himalayas, Western Ghats, Nilgiris; (c) Bhalukpong, Jamiri, Salari, Dirang, 215m to 1500m (Common).

Part(s) and local uses: Fruit is used as appetizer.

Form of use: Fresh fruit.

Preparation: Fruit is directly taken.

Dose: Once in daily five fruits for ten days.

Other uses: DD

Uses: DD

Exsiccatum: Salari, 8.5.2004, Kar 93.

Dendrobenthamia capitata (Wall ex Roxb.) Hutch., (Cornaceae).

LN: Machmi (DM).

Descr: Medium sized tree; leaves alternate, elliptical; flower yellowish white; berry when ripe become red, bitter, outer skin with protruberence.

Habitat: Dense forest (Fig. 91).

Regen: By seed.

Fl: Apr. to June; Fr: July to Sept.

Distrib: (a) Hongkong, China, Nepal, Bhutan; (b) Himachal Pradesh;
(c) Salari, Lower Duangba, 1300m to 2200m (Rare).

Part(s) and local uses: Fruit against headache and vertigo.

Form of use: Ripe fruit.

Preparation: Ripe fruit is directly taken.
**Dose:** Once in daily two fruit after meal for three days for both the cases.

**Other uses:** DD

**Uses:** DD

**Exsiccatum:** Salari, 8.5.2004, Kar 94.


**LN:** Mone-momnunung (DM).

**Descr:** Ground orchid; leaves lanceolate, acuminate; flowers many are orange yellow, lip orbicular; fruit capsule.

**Habitat:** Forest (Fig. 92).

**Regen:** By seed.

**Fl:** June to July; **Fr:** Aug. to Sept.

**Distrib:** (a) Myanmar, Indonesia, Malaysia, Hong Kong, China; (b) Sikkim, Meghalaya, Manipur; (c) Salari, Dirang, 1300m to 1500m (Rare).

**Part(s) and local uses:** Flower for vitality and against asthma.

**Form of use:** Powder.

**Preparation:** Fresh flower dried then made into powder.

**Dose:** Two-table spoon once in daily after meal for fifteen days for vitality and one table spoon mixed in one cup of warm water, daily once for nine days against asthma.

**Other uses:** As ornamental (DM).

**Uses:** DD.

**Exsiccatum:** Salari, 8.5.2004, Kar 94.

*Dillenia indica* L., (Dilleniaceae).

**LN:** Bau (N).
**Descr:** Medium sized tree; leaves fascicled at the ends of branches, oblong to lanceolate, acuminate, serrate; flower white, solitary towards the end of each branchlet; fruit 7-10cm diameter, calyx modified into fruit, sour in taste.

**Habitat:** Forest and roadsides (Fig. 93).

**Regen:** By seed.

**Fl:** May to Aug.; **Fr:** Sept. to Feb.

**Distrib:** (a) Nepal, Sri Lanka, Malaysia, China; (b) Assam, Malaya peninsula, Himachal Pradesh, West Bengal; (c) Seijusa, Bhalukpong, Seppa, 160m to 400m (Common).

**Part(s) and local uses:** Fruit for digestion.

**Form of use:** Decoction.

**Preparation:** Outer skin of a fruit is removed then made into small pieces and boiled in two glasses of water until the quantity become half.

**Dose:** One glass of decoction once in daily after meal for ten days.

**Other uses:** Fruit is used in chutney (N).

**Uses:** Ayurveda: Fruit dispels fatigue and stop abdominal pain.

**Market value:** (a) Rs. 5.00 per fruit at Seppa market.

(b) Rs. 2.00 per fresh fruit.

**Exsiccatum:** Bhalukpong, 8.5.2004, Kar 68.


**LN:** Chombey Chak (DM); Regging (N).

**Descr:** Shrub; stem twining to the left; Leaves opposite and alternate, deeply cordate; capsule long with prominent ridge.

**Habitat:** Forest (Fig. 94).

**Regen:** By bulbil and rhizome.

**Fl:** May to June; **Fr:** June to Aug.
**Distrib:** (a) Australia, New Caledonia, Madagascar, Sri Lanka, East Africa, Brazil; (b) Kerala, Tamil Nadu, Orissa, Uttar Pradesh, West Bengal; (c) Seijusa, Kalaktang, Rupa, Jamiri, Salari, Nafra, Bhalukpong, Bana, Bameng, Pappu valley, Shergaon, 160m to 1950m (Common).

**Part(s) and local uses:** Tuber against stomach pain and headache.

**Form of use:** Boil.

**Preparation:** 100gm of tuber is boiled in two-glass of water for 10 minutes.

**Dose:** 100gm boiled tuber once in daily.

**Other uses:** Tuber used as vegetable (DM); (N).

**Uses:** Ayurveda: Tuber is used as tonic, aphrodisiac, stomachic, anthelmintic, appetizer, dyspepsia, urinary discharges, leucoderma, bronchitis, piles and tumours.

Unani: Tuber expectorant, astringent to the bowels, used against asthma, bronchitis and abdomen pain.

**Exsiccatum:** Salari, 25.2.2004, Kar 69.


**LN:** Brymon (TM).

**Descr:** Robust perennial herb with angled stem 60 to 200cm, scattered prickles; leaves elliptic, toothed or distantly lobed, with terminal lobe largest; flowers cream, in dense globular heads 2-3cm across with 6 to 8 linear to ovate spreading green bracts, borne on long leafless stalks; calyx 4 angled, without bristles.
Habitat: In forest amidst grasses, damp situation; in open sandy soils on rocky slopes. (Fig. 95).

Regen: By seed.

Fl: June to Aug.; Fr: Sept. to Feb.

Distrib: (a) Myanmar, Afghanistan, Pakistan, Nepal, Bhutan, Southeast and West China; (b) Jammu and Kashmir, Himachal Pradesh, Uttar Pradesh, Sikkim, Darjeeling; (c) Tawang, Mokto, Bomdir upto 1400m to 2500m (Common).

Part(s) and local uses: Root against diarrhoea and infectious muscles.

Form of use: Powder.

Preparation: One mature root is properly dried up in sunlight, crushed and made into powder.

Dose: One-tablespoon powder is mixed in one cup of warm water once in daily for five days against diarrhoea; powder applied on infectious muscles daily once until cure.

Other uses: DD

Uses: DD

Market value: (a) Rs. 20.00 to 25.00 per kg of dry root at Mokto.

Exsiccatum: Mokto, 28.2.2004, Kar 70.

**Dobinea vulgaris Hamilt. ex D. Don.** (Podoaceae).

LN: Bampo (DM).

Descr: Shrub; branches pubescent; leaves opposite, pubescent, serrate; flower in panicles, unisexual; fruit compressed, indehiscent, borne on widely bracteate pedicels, bract adnate to the pedicel and exceeding both it and the fruit.

Habitat: Roadsides (Fig. 96).

Regen: By seed.

**Distrib:** (a) Nepal, Bhutan, (b) Central & Eastern Himalaya, Sikkim, Mishmi hills, (c) Nachyphu 1500m to 1700m (Common).

**Part(s) and local uses:** Flower for vitality.

**Form of use:** Decoction.

**Preparation:** 50gm fresh flower is boiled in one glass of water until become half and then sieved.

**Dose:** Half glass once in daily for fifteen days.

**Other uses:** DD

Uses: DD

**Exsiccatum:** Nachyphu, 8.5.2004, Kar 96.


**LN:** Bay chang ray (TM); Paypay (Ak); Mrindong khaj (Sher); Medil (N).

**Descr:** Prostrate annual herb 30 to 50 cm high; leaves opposite, sessile, cordate; flower white; capsule glandular.

**Habitat:** Roadsides, in moist grassland (Fig. 97).

**Regen:** By seed.

Fl: Sept. to Dec.; Fr: Jan. to June.

**Distrib:** (a) Argentina, Brazil, Zimbabwe, Indonesia, China, Sri Lanka, Malaysia; (b) Punjab, Himachal Pradesh, Uttaranchal, Sikkim, Assam, Meghalaya; (c) Seijusa, Pappu valley, Bana, Bameng, Paliji, Bhalukpong, Bomdila, Rupa, Tawang, 160m to 3200m (Common).

**Part(s) and local uses:** Leaves and stem are used against sinusitis (TM), wound (Ak) joint pain and headache (N).

**Form of use:** Fresh plant extracts and paste.
**Preparation.** Extracts of fresh plant are directly used with the help of cotton against sinusitis. Fresh leaves are crushed and made into paste.

**Dose:** One drop is applied once in daily for each nose against sinusitis; for wound once daily for five days. Paste is applied on affected parts once daily for four days against joint pain and headache.

**Other uses:** Tender leaves used as vegetables (Ak), (Sher).

**Uses:** DD

**Exsiccatum:** Paliji, 10.1.2004, Kar 59.


**LN:** Damrep (TM); Majlamlang (Sher).

**Descr:** Shrub, armed with small straight thorns; branches silvery; leaves alternate, elliptic-oblong, acute, wavy, silvery beneath; flowers yellowish white, axillary; fruit 7-8 mm long narrowly ovoid, succulent covered with silvery scales, red.

**Habitat:** In open places along roadsides and hilly slope (Fig. 98).

**Regen:** By seed.

**Fl:** Apr. to May; **Fr:** June to Sept.

**Distrib:** (a) Nepal, Afghanistan, North China, Japan; (b) temperate Himalaya, from Kashmir to Sikkim 1100m - 3000m; (c) Rupa, Bomdila, Salari, Dirang, Mokto, Kitpi, Bomdir, Tawang, 1300m to 3200m (Common).

**Part(s) and local use:** Fruit against dysentery and leaves against skin itching (TM).

**Form of use:** Fresh fruit and leaf paste.
**Preparation:** Fruit is taken as such; fresh leaves are made into paste and applied on the affected parts.

**Dose:** 10 to 15 fruits once in daily for six days against dysentery; once daily for nine days against skin itching.

**Other uses:** Children consume fruit as refreshment (Sher), (TM).

**Uses:** DD

**Exsiccatum:** Bomdir, 22.4.2004, Kar 84.

*Embla officinalis* Gaertn. Syn. *Phyllantus emblica* L.,

(Euphorbiaceae).

**LN:** Korba Sheng (DM); Amla (N).

**Descri:** A medium sized tree; leaves pinnately compound, lower surface pale green; flower yellowish white; fruit round smooth.

**Habitat:** In forest (Fig. 99).

**Regen:** By seed.

**Fl:** Aug. to Sept.; **Fr:** Oct. to Dec.

**Distrib:** (a) Bangladesh, Myanmar and China; (b) Uttar Pradesh, Bihar, West Bengal and Assam; (c) Bhalukpong, Seppa, Saliari, 215m to 1300m (Rare).

**Part(s) and local uses:** Fruit as appetizer, improve taste and body immune system (DM); (N).

**Form of use:** Dry fruit.

**Preparation:** Fresh fruits are made into slices and then mixed with a little amount of salt then dried in the sunlight.

**Dose:** Two slices before half an hour of meal once in daily for one and half months.

**Other uses:** Fruit used as pickle (N).

**Uses:** *Ayurveda:* Fruit is useful in indigestion and gastritis.

**Market value:** (a) Rs. 5.00 per kg of fresh fruit at Seppa.
(b) Rs. 8.00 to 12.00 per kg of fresh fruit.

**Exsiccatum:** Seppa, 24.4.2004, Kar 85.


**LN:** Thake (DM).

**Descr:** Woody climber; leaves bipinnate, pinnae 2-3 pairs; leaflets oblong or obovate-obtuse; flower panicled, minute yellow; pod 30-90cm long, slightly curved, indented between the seeds, suture thick; seeds 4-6cm diameter, compressed, brown.

**Habitat:** In forests along banks of stream, dense forest (Fig. 100).

**Regen:** By seed.

**Fl:** June to Aug.; **Fr:** Sept. to Nov.

**Distrib:** (a) Sri Lanka, Nepal; (b) Eastern Himalaya to Central Himalaya, Peninsula, Assam, Sikkim, Manipur; (b) Jamiri and Salari, 1170m to 1300m (Common).

**Part(s) and local uses:** Seed against blood pressure.

**Form of use:** Fresh extract.

**Preparation:** Fresh seeds are crushed and juice is extracted.

**Dose:** Two-table spoon once in daily for one month.

**Other uses:** DD

**Uses:** DD

**Market value:** (b) Rs. 24.00 per kg of dry seed.

**Exsiccatum:** Salari, 15.3.2004, Kar 77.

**Equisetum debile** Roxb. ex *Equisetum ramossimum* Desf., (Equisetaceae).

**LN:** Sojeynimu (Ak).
**Distrib:** (a) Pappu New Guinea, Sri Lanka, Zambia; (b) Punjab, Sikkim, Assam, Manipur, Tripura; (c) Bhalukpong, Jamiri, Seppa, Salari, 215m to 1300m (Common).

**Habitat:** In open moist places along forest edges, on the side of bridle path (Fig. 101).

**Regen:** By spore.

**Descr:** A herb, 2-3 ft high, branch drooping, rough; leaves scaly, minute; cone elliptical.

**Cone:** Oct. to Jan.

**Part(s) and local uses:** Branches against bone fracture.

**Form of use:** Paste.

**Preparation:** 500gm fresh branches made into paste by adding a little amount of water and then applied on the affected parts and bandage is applied with banana leaves.

**Dose:** Bandage is left for fifteen days.

**Other use:** Plant used in religious ceremony (Ak).

**Uses:** DD

**Exsiccatum:** Jamiri, 15.3.2004, Kar 78.

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**Eryngium foetidum** L. (Apiaceae).

**LN:** Jami osi (DM).

**Distrib:** (a) Iran, Iraq, Israel, Pakistan, Bangladesh; (b) West Bengal, Assam, Tripura, Manipur, Nagaland; (c) Bhalukpong, Jamiri, Salari, 215m to 1300m (Common).

**Habitat:** In open moist places, along forest edges (Fig. 102).

**Regen:** By root and seed.

**Descr:** A perennial aromatic herb; leaves spathulate, spines on the leaf margin; inflorescence umbel surrounded by spinulose bracts; flower white.
**Erythrina arborescense** L. (Papilionaceae).

LN: Nat- aheg (TM); Skrou (Sher); Tagek Chaegne (N).

Descr: Small tree; leaves compound, leaflets 3, terminal leaflets largest, broadly rhomboid-ovate, acute, stellately pubescent in young leaves, glabrous mature leaves; flower in dense racemes red, bracts small triangular, tomentose; pod long, glabrous, brown.

Habitat: In open places along roads and forest (Fig. 103).

Regen: By seed.

Fl: Feb. to Apr.; Fr: May to Aug.

Distrib: (a) Sri Lanka, Bhutan, Malaysia, Nepal, Bangladesh; (b) Coast forest from Bombay to Malabar, Andaman and Nicobar, Orissa, West Bengal, Assam; (c) Bhalukpong, Rupa, Dirang, Mokto, Pamagarh, 215m to 2300m (Common).

Part(s) and local uses: Tender leaves against blood dysentery (TM).

Form of use: Fresh leaf extract.

Preparation: Tender leaves are crushed and juice is extracted.
**Dose:** Two-table spoon once in daily for five days.

**Other use:** Leaves are used as vegetable (Sher); plant used in religious ceremony and tender shoot used as vegetable (N).

**Uses:** **Ayurveda:** Bark is used against dysentery, leaves against of stomachic, anthelmintic, improve appetite, cure urinary discharges, inflammations; flowers are used in biliousness and ear troubles, young leaves are used against intestinal worms.

**Exsiccatum:** Pamagarh, 17.3.2004, Kar 80.

**Eucalyptus globules** **Labill Voy.** (Myrtaceae).

**LN:** Vicks/Ningmo (Mi).

**Descr:** Gigantic tree; bark smooth; leaves 20-25cm. Long, falcate, curved, opposite; in young plants leaves broadly ovate with a bluish hue; flower yellow; operculum thick, pointed; fruits angular.

**Habitat:** Roadsides (Fig. 104).

**Regen:** By seed.

**Fl:** July to Aug.; **Fr:** Sept. to Oct.

**Distrib:** (a) Australia, Indonesia, Malaysia, China, USA; (b) cultivated in Tamil Nadu, Karnataka, Kerala, Andhra Pradesh, Himachal Pradesh; (c) Tenga Valley, Salari, Dirang, Bomdila, 1350m to 2700m (Common).

**Part(s) and local uses:** Leaves against cough and nose block.

**Form of use:** Decoction.

**Preparation:** Twenty leaves are boiled in ten-glass of water for fifteen minutes.

**Dose:** Wash mouth and nose and inhale vapour of the steam once in daily for five days.

**Other uses:** As ornamental plant (DM).
**Uses: Siddha**: Eucalyptus oil is used locally as an antiseptic especially in the treatment of infections of the upper respiratory tract and in certain skin diseases. It is useful as a rubefacient for rheumatism, which help in reducing joint swelling. It is also used in ointments for burns, expectorant in chronic bronchitis and asthma.

**Market value**: (c) Rs. 1628.00 per lit of leaf oil.

**Exsiccatum**: Salari, 11.5.2004, Kar 97.

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**Eupatorium odoratum** L. (Asteraceae).

**LN**: Chabu (Mi).

**Descr**: Straggling shrub; leaves opposite, deltoid, coarsely serrate; inflorescence head light blue; flower white, corolla tubular, calyx modified into pappus; fruit cypsella.

**Habitat**: Roadsides, scrubs (Fig. 105).

**Regen**: By seed.

**Fl**: Nov. to Jan.; **Fr**: Feb. to June.

**Distrib**: (a) Cambodia, America, China, Japan, Myanmar; (b) Assam, West Bengal, Bihar, Maharastra, Uttarpradesh; (c) Bhalukpong, Jamiri, Seppa, Nafra, Salari 215m to 1300m (Common).

**Part(s) and local uses**: Leaves against minor cuts.

**Form of use**: Fresh leaf extract.

**Preparation**: Four fresh leaves are crushed and juice is extracted and then applied over the affected parts.
**Dose:** Twice daily for two day.

**Other uses:** Dry plant is used as fuel (Mi)

**Uses:** DD

**Market value:** (c) Rs. 3300.00 per kg of leaf powder (used as biofertilizer in UK).

**Exsiccatum:** Nafra, 11.5.2004, Kar 71.

**Fagopyrum dibotrys (D.Don) Hara** Syn. *Polygonum dibotrys* D.Don.;

*Fagopyrum cymosum* (Trev.) Meisn., (Polygonaceae).

**LN:** Tem (DM); Rekay Dakpo (TM).

**Descr:** A pubescent herb; leaves triangular; stipules tubular; flower white; fruit nut, acutely three cornered.

**Habitat:** Cultivated in the hilly slopes (Fig. 106).

**Regen:** By seed.

**Fl:** Oct. to Dec.; **Fr:** Nov. to Jan.

**Distrib:** (a) China, Nepal, Bhutan; (b) Temperate Himalaya, Sikkim 1500-3000m, Khasi hills; (c) Salari, Bomdila, Mokto, Bomdir, Lhou, Bameng, Chyangtaju, Tawang 1300m to 3200m (Common).

**Part(s) and local uses:** Stem & leaves against rib pain.

**Form of use:** Paste.

**Preparation:** 100gm fresh stem and leaves are crushed and made into paste.

**Dose:** Massaged on the affected part once in daily for 15 minutes for six days.

**Other uses:** (i) Seeds are used in local drink preparation; (ii) and also used in local bread.

**Uses:** DD

**Market value:** (a) Rs. 20.00 per kg of dry fruit at Bomdir and 35.00 at Bomdila.
**Ficus racemosa** L. Syn. *Ficus glomerata* Roxb., (Moraceae).

**LN:** Rhidang mrep (DM).

**Descr:** Moderate sized tree; leaves ovate, ovate-lanceolate, elliptic, rough; inflorescence syconus; fruit globose or pyriform, red when ripe.

**Habitat:** In dense forest (Fig. 107).

**Regen:** By seed.

**Fl:** Jan. to Mar.; **Fr:** Apr. to July.

**Distrib:** (a) Myanmar, Bangladesh, Sri Lanka; (b) Assam, Orissa, Bihar, Uttar Pradesh, Punjab, Kerala, Andhra Pradesh; (c) Bhalukpong, Tippi, Durga Mandir, 215m to 950m (Common).

**Part(s) and local uses:** Stem bark for vitality of the pregnant women.

**Form of use:** Decoction.

**Preparation:** 200gm fresh stem bark is boiled in four glass of water until it become half.

**Dose:** Two glass of decoction once in daily for two month.

**Other uses:** Fruit edible (DM).

**Uses:** **Ayurveda:** Bark cooling; unripe fruit acrid, astringent to the bowels; tonic, styptic, leucorrhoea, and blood disease; ripe fruit is acrid, cooling, useful in blood disease, biliousness, burning sensations, urinary discharges, thirst, leprosy, menorrhagia, nose bleeding and intestinal worms.

**Unani:** Bark is useful in asthma and piles; leaves as astringent to the bowel and good for bronchitis; fruit sweetish, useful in bronchitis, dry cough, loss of voice, disease of the kidney and the spleen; latex aphrodisiac, useful in inflammations.

**Exsiccatum:** Bhalukpong, 2.3.2004, Kar 73.

LN: Phamrep (DM).

**Distrib:** (a) China, Nepal, Bhutan; (b) Himalayas upto 3600m, Sikkim, Himachal Pradesh, Uttarakhal; (c) Duangba, Bomdila, Tawang 2600m to 3200m (Common).

**Habitat:** Roadsides, moist grass field (Fig. 108).

**Regen:** By root and seed.

**Descr:** Perennial herb; leaves radical, trifoliate, long petiole ovate-elliptical, coarsely serrate; flower white; fruit achene, dome shaped, red, juicy.

**Fl:** May to June; **Fr:** July to Aug.

**Part(s) and local uses:** Fruit is used to generate blood corpuscles.

**Form of use:** Fresh fruit.

**Preparation:** Fruit is consumed directly.

**Dose:** Once in daily five fruits for one month.

**Other uses:** Fruit edible (DM).

**Uses:** DD

**Exsiccatum:** Tawang,: 5.3.2004, Kar 74.

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**Fragaria vesca** L., (Rosaceae).

LN: Sagong (DM).

**Descr:** Perennial herb; leaves radical, ovate-elliptical, coarsely serrate; flower white; fruit achene, globose, ovoid, red.

**Habitat:** Roadsides (Fig. 109).

**Regen:** By root.
**Galinsoga parviflora** Cav. (Asteraceae).

*LN*: Parau (N); Shobshe (TM); Churpu/Nirangon (DM); Oing (Mi).

*Habitat*: Roadsides (Fig. 110).

*Descr*: Glabrous herb; 60 to 80cm high; leaves opposite, elliptical to ovate, serrate, tomentose, flower head blue; fruit achene.

*Regen*: By seed.

*Fl*: May to July; *Fr*: Aug. to Sept.

*Distrib*: (a) Indonesia, Malaysia, Tropical South America; (b) Himalayas belt upto 2500m, Sikkim, Uttarakhand, Meghalaya, Darjeeling; (c) Nafra, Jamiri, Salari 1030m to 1300m (Common).

**Part(s) and local uses**: Leaves against minor cut to stop bleeding (N); (TM); (DM).
Form of use: Fresh leaf extract.

Preparation: Fresh leaves are crushed and juice is extracted.

Dose: Juice is applied on the affected parts, twice daily for two days.

Other uses: Leaves used as fodder (N).

Uses: DD

Exsiccatum: Bomdila, 28.4.2004, Kar 89.

**Garcinia pedunculata** Roxb. (Clusiaceae).

LN: Meba (N).

Descr: Big tree; leaves alternate, elliptical or ovate, wavy; male flower large pale green, female flower larger than male, solitary; fruit large, fleshy, yellow, aril succulent, sour taste.

Habitat: In primary tropical forest (Fig. 111).

Regen: By seed.


Distrib: (a) Bangladesh, Myanmar;
(b) West Bengal, Tripura, Assam; (c) Seppa 560m (Rare).

Part(s) and local uses: Fruit against blood dysentery.

Form of use: Infusion.

Preparation: Fresh fruits are sliced and properly dried up in the sunlight and stored for future use.

Dose: Two dried pieces are soaked in one-cup of water for overnight and are drunk in the morning after meal. Once in daily for seven days.

Other uses: Ripe fruit edible (N).

Uses: DD

Market value: (a) Rs. 5.00 per fruit at Seppa market.
(b) Rs. 55.00 per kg of dry fruit.

**Gaultheria trichophylla Royle.** (Ericaceae).

LN: Sha-chando (TM).

**Descr:** Prostrate dwarf shrublet on rock; leaves tiny, opposite, elliptic; flower red or pink, bell shaped; fruit berry sky blue fleshy.

**Habitat:** On open dry grassy surface of rocks (Fig. 112).

**Regen:** By seed.

**Fl:** June to Aug.; **Fr:** Sept. to Oct.

**Distrib:** (a) China, Bhutan, Nepal, Pakistan; (b) Sikkim, Himachal Pradesh, Uttaranchal; (c) Sela 3300m to 3600m (Rare).

**Part(s) and local use:** Whole plant against malaria and roundworm.

**Form of use:** Decoction.

**Preparation:** 50 gm of fresh plant is boiled in one glass of water until the quantity become half.

**Dose:** Half a glass of decoction is taken once in daily for twenty days against malaria and seven days against ringworm.

**Other uses:** DD

**Uses:** DD

**Exsiccatum:** Sela, 26.4.2004, Kar 87.

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**Geranium nepalense Sweet.** (Geraniaceae).

LN: Nilingkon (DM).

**Descr:** Perennial herb; stem pubescent; leaves palmately 3-5lobed, serrate, tomentose, flower pink in terminal or axillary; capsule small.

**Habitat:** Recently introduced for cultivation (Fig. 113).

**Regen:** By stem cutting.

**Fl:** Sept. to Oct.; **Fr:** Nov. to Dec.
Distrib: (a) Nepal, Bhutan; (b) Himalayas 5000-9000 ft and in Khasi, Nilgiri, pulney hills; (c) Dirang 1500m (Rare).

Part(s) and local use: DD

Other uses: DD

Uses: Ayurveda. Geranium oil used in arthritis, muscle pain.

Market value: (a) Rs. 2.00 per stem cut at Dirang village.

Exsiccatum: Dirang, 29.4.2004, Kar 90.


LN: Joji (N); Finep (Sher); Finicho (DM).

Descr: A perennial herbs; leaves opposite, elliptical, serrate, stinging nettle; flower minute, green; fruit nutlet.

Habitat: Roadsides (Fig. 114).

Regen: By seed.

Fl: Mar. to May; Fr: June to July.

Distrib: (a) Zaire, Kongo, Kenya, Indonesia, Malaysia, Sri Lanka, China; (b) subtropical Himalayas from Kashmir to Sikkim up to an altitude of 2500m and in Assam & Khasi hills; (c) Bhalukpong, Seppa, Salari, Tenga, Rupa, Dirang 215m to 1500m (Common).

Part(s) and local use: Tender leaves against high blood pressure (Sher).

Form of use: Boil.

Preparation: Tender shoots are plucked with the help of cutter and then washed in running water and boiled properly for half an hour.

Dose: 100gm is once taken in daily for one month.
**Girardinia zeylanica Decne.** (Urticaceae).

LN: Mamo (N); Shenu (Sher); Finithong (DM).

**Descri:** Perennial herb 60 to 80cm tall; stem & leaves covered with stiff stinging hairs; irritating to human skin; leaves opposite, lobed, coarsely serrate; flower bluish white, small, unisexual, perianth tubular; fruit achene, spherical, compressed.

**Habitat:** Scrubs, roadsides and forest (Fig. 115).

**Regen:** By seed.

**Fl:** Aug. to Oct.; **Fr:** Sept. to Dec.

**Distrib:** (a) Kongo, Sri Lanka, Myanmar (b) West Bengal, West Peninsula, Assam, Sikkim; (c) Bhalukpong, Rupa, Shergaon, Jamiri, Seppa, Bana, Salari, 215m to 1300m (Common).

**Part(s) and local uses:** Young shoot against high blood pressure (Sher).

**Form of use:** Boiled leaves.

**Preparation:** Tender shoots are plucked with the help of cutter and then washed in running water and boil properly for half an hour.

**Dose:** Once daily 80gm is taken for two months.

**Other uses:** Leaves used as vegetable (N); (DM); (Sher).

**Uses:** DD.

**Exsiccatum:** Rupa, 12.5.2004, Kar 99.

**LN:** Kamar (DM).

**Descr:** Herb; leaves alternate, oblong, mid-rib prominent, lanceolate, petiole sheathing; white flower in spike with mild fragrance; capsule glabrous, globose.

**Habitat:** Roadsides (Fig. 116).

**Regen:** By rhizome.

**Fl:** June to Aug.; **Fr:** Sept. to Oct.

**Distrib:** (a) Nepal, Bhutan; (b) Subtropical Himalaya, Kumaon 1600-2000m, Sikkim, Tamil Nadu, Kerala; (c) Sessa, Salari, Shergaon 1250m to 1900m (Rare)

**Part(s) and local uses:** Rhizome against weakness.

**Form of use:** Boiled fresh rhizome.

**Preparation:** 50gm of rhizome is boiled in one glass of water for 10 minutes.

**Dose:** Once in daily along with a meal for five days.

**Other uses:** (i) As ornamental in the garden (DM).

**Uses: Ayurveda:** Rootstock are bitter in taste and used as astringent, and also useful in asthma, pains, foul breath, bronchitis, hiccough, and blood disease.

**Unani:** Rootstock is used as laxative, brain tonic, emmenagogue, carminative, good in liver complaints and diarrhoea.

**Market value:** (b) Rs. 175.00 per kg of dry rhizome.

**Exsiccatum:** Sessa, 14.5.2004, Kar 100.

**Helianthus annus** L., (Asteraceae).

**LN:** Nima mento (TM).

**Descr:** Annual herb; stem hairy sometimes furrowed; leaves alternate, broadly ovate to cordate, coarsely toothed, pubescent both surfaces; flower head with...
periphery ray florets and central ligulate florets; flower yellow; fruit cypsela; seed black.

**Habitat:** Introduced for planted in the garden (Fig. 117).

**Regen:** By seed.

**Fl:** Dec. to Feb.; **Fr:** Mar. to Apr.

**Distrib:** (a) Germany, Ireland, Luxembourg, Netherland, Portugal, Spain, Caucasus, Ukraine, Balkans, Russia, Italy, France, England, USA, Canada, Argentina, Uruguay, China, Turkey, East and South Africa, Australia, Zimbabwe; (b) Maharsta, Karnataka, West Bengal, Tamil Nadu, Punjab; (c) Salari, Bomdila, Tawang, 1300m to 3200m (Common).

**Part(s) and local uses:** Seed against muscle pain.

**Form of use:** Seed paste or oil.

**Preparation:** Dry seeds are crushed and a paste is prepared by adding a little amount of water. Oil is purchased from the market.

**Dose:** Paste or oil is applied on the affected parts and massaged, daily twice for six days.

**Other uses:** Planted as ornamental plant for its attractive flower (TM).

**Uses:** **Ayurveda:** Flower anthelmintic, antiperiodic, useful in skin disease, itching, ulcers, leprosy, hysteria, fever, asthma, bronchitis, urinary discharges, anaemia and also good for burning sensation in the vagina; worms in the ears and scorpion sting.

**Unani:** Root decoction strengthen the teeth, cures toothache; leaves are used as emetic; flowers as tonic, aphrodisiac, lessen inflammation, applied in complaints of the chest, liver, lungs, and also used in piles, ophthalmia, ascites and cure diseases of the kidney.

**Market value:** (a) Rs. 20.00 of 100gm seed at Tawang.
Hemiphragma heterophyllum Wall. (Scrophulariaceae).

LN: Yeabera (TM).

Descr: A creeping perennial herb; stem spreading; leaves opposite, cordate, serrate; flower pink, 5 lobed; fruit berry, red, fleshy, globular.

Habitat: Roadsides on moist rock surfaces (Fig. 118).

Regen: By seed.

Fl: June to July; Fr: Aug. to Sept.

Distrib: (a) Bhutan, China, Nepal; (b) Himachal Pradesh, Sikkim; (c) Bomdir, Tawang, Sela, 2350m to 3700m (Rare).

Part(s) and local uses: Whole plant is used against body swelling and as blood purifier.

Form of use: Decoction for body swelling and fresh plant extract is used for blood purification.

Preparation: 500gm of plants is boiled in one-bucket of water for half an hour then sieved and kept for a while to cool. Fresh plant is crushed and juice is extracted.

Dose: Take bath with the decoction once daily for ten days against swelling. One-tablespoon juices once daily for eight days to purify blood.

Other uses: DD

Uses: DD

Exsiccatum: Bomdir, 17.5.2004, Kar 106.
LN: Bojong (KM).

**Descr:** Herb; tuber with aroma, white, rootlets; leaves radical, long, cordate, sagittate, acuminate, veins prominent; flower many in spadix, spathe green; berries oblong.

**Habitat:** In dense moist forest (Fig. 119).

**Regen:** By rhizome.

**Fl:** Nov. to Jan.; **Fr:** Feb. to Mar.

**Distrib:** (a) Laos, Bangladesh, Sri Lanka, subtropical parts of Asia and America; (b) Assam, Tripura, Mizoram; (c) Seijusa, Bhalukpong, 160m to 220m (Rare).

**Part(s) and local uses:** DD

**Other uses:** DD

**Uses:** DD

**Market value:** (a) Rs. 30.00 per kg of fresh rhizome at Seijusa.
   
   (b) Rs. 27.00 per kg of dry root.

**Exsiccatum:** Seijusa, 22.10.2004, Kar 161.

*Houttuynia cordata* Thunb., (Houttuyniaceae)

**LN:** Mriptang (TM); Momreng (DM); Mumarang (KM); Hangya (N).

**Descr:** Herb 10 to 60 cm high with creeping, white rootstock. Leaves alternate, cordate, 3 to 8 cm long, with a fishy smell when bruised; leaves and roots with fishy smell. Flower naked in spikes, subtended by 4 white bracts, minute, 1 to 1.2 cm long; stamens 3; fruit pod.

**Habitat:** Roadsides, forest, jhum field (Fig. 120).

**Regen:** By root.

**Fl:** May to June; **Fr:** July to Aug.

**Distrib:** (a) South Korea, China, Formosa, America and Japan; (b) temperate Himalaya, Khasi hills, Manipur upto 2000m, Punjab, Sikkim, Assam; (c) Bhalukpong, Jamiri, Rupa,
Kalaktang, Bomdila, Dirang, Seppa, Tawang, Seppa 210m to 3200m (Common).

Part(s) and local uses: Root against gastritis (TM).

Form of use: Decoction.

Preparation: 50gm fresh root is boiled in one glass of water until it become half.

Dose: Two-tea cup twice daily for seven days.

Other uses: Roots and leaves are used as vegetable and chutny (DM), (KM), (N).

Uses: DD

Market value: (a) Rs. 20.00 per kg of fresh root at Bomdila market.

(c) Rs. 352.00 to 528.00 per kg of leaf powder.

Exsiccatum: Dirang, 23.10.2004, Kar 162.


LN: Chhumli-mento (DM).

Descr: A shrub; branch pubescent; upper and lower surface of the leaves tomentose; flower blue with four yellow large sepals; capsule hemispheric, subquadrant.

Habitat: Roadsides, dense forest (Fig. 121).

Regen: By seed.

Fl: June to July; Fr: Aug. to Sept.

Distrib: (a) Peraguay, Mexico, Brazil, Malaysia, Japan; (b) Sikkim, Himachal Pradesh; (c) Salari, Nachayphu, 1300m to 1700m (Common).

Part(s) and local uses: Fruits are used to generate blood corpuscles.

Form of use: Fruit paste.

Preparation: Fresh fruits are crushed and made into paste.

Dose: One tablespoon is taken once in daily for ten days.
**Other uses: DD**

** Uses: DD**

**Exsiccatum:** Dirang, 24.10.2004, Kar 163.


**Descr:** an annual prostrate herb, 15-30cm long; leaves orbicular, crenate; inflorescence umbel; flower pink; fruit flat.

**LN:** Tingperor (Sher).

**Distrib:** (a) Indonesia, Malaysia, Nepal, Bhutan, China; (b) Uttarakhand, Sikkim, Darjeeling, Meghalaya, Tripura; (c) Tippi, Sessa, Rupa, Shergaon, Bomdila, Dirang, Bameng, Pappu Valley, Mokto, Jong, Bomdir, Tawang, 240m to 3200m (Common).

**Habitat:** In roadside, grassland, moist forest edges (Fig. 122).

**Regen:** By root.

**Fl:** July to Oct.; **Fr:** Sept. to Nov.

**Part(s) and local uses:** Leaves against stomach pain.

**Form of use:** Fresh juice extracts.

**Preparation:** Fresh leaves are crushed and juice is extracted.

**Dose:** Once in daily two table spoon for five days.

**Other uses:** Tender leaves are used in chutney preparation.

**Uses:** DD

**Exsiccatum:** Naychayphu, 28.10.2004, Kar 181.


**LN:** Grang Kejong (N).
**Descr:** Annual prostrate herb, 30 to 50 cm long; leaves reniform, margin crenate with dotted glands, inflorescence umbel, flower purple; fruit flat round cremocarp.

**Habitat:** Moist shady places, roadsides, crop field (Fig. 123).

**Regen:** By root.

**Fl:** Apr. to June; **Fr:** July to Sept.

**Distrib:** (a) Guinea, Malaysia, Indonesia, Sri Lanka; (b) Assam, Meghalaya, Tripura, Nagaland, Manipur, West Bengal, Kerala; (c) Seijusa, Bhalukpong, Seppa, 160m to 400m (Common).

**Part(s) and local uses:** Whole plant against dysentery and gastritis.

**Form of use:** Fresh juice extract.

**Preparation:** Fresh plants are crushed and juice is extracted.

**Dose:** Three-table spoon twice daily for five days against dysentery and for fifteen days against gastritis.

**Other uses:** Leaves are used in chutney preparation (N).

**Uses:** DD

**Market value:** DD

**Exsiccatum:** Dirang, 28.10.2004, Kar 182.

**Illicium griffithii** Hook. f. & Th., (Illiaceae).

**LN:** Lissi (DM); Braylo (KM); Chantou (Sher).

**Distrib:** (a) China, Bhutan; (b) Khasi hills; (c) Dirang, Bomdila, Dirang, Shergaon, Kalaktang, Morsing, lower Duangba, 1500m to 2400m (Common).

**Habitat:** Forest (Fig. 124).

**Regen:** By seed.

**Descr:** A small tree; leaves ovate, elliptic to lanceolate; flowers solitary, axillary or terminal; fruit compressed, beaked, incurved, star-shaped, aromatic arranged in a single whorl; seeds small, glossy, brown.
**Fl**: June to Aug.; **Fr**: Sept. to Oct.

**Part(s) and local uses**: Dry fruits against gastritis.

**Form of use**: Infusion.

**Preparation**: Two dry fruits are kept in one-cup of water for overnight.

**Dose**: One cup is taken for once in daily for ten days after meal in morning.

**Other uses**: Fruit powder used in curry. (DM); (KM); (Sher).

**Uses**: DD

**Market value**:
(a) Rs. 60.00 per kg of dry fruit at Dirang; Rs.80.00 at Bomdila; Rs. 50.00 to 70.00 at Kalaktang and Morsing.
(b) Rs. 40.00 per kg of dry fruit.
(c) Rs. 80.00 to 150.00 per kg of dry fruit.

**Exsiccatum**: Dirang, 29.10.2004, Kar 189.


**LN**: Tingtay (DM).

**Descr**: A herbaceous grass; rootstock creeping, white to brown; stem solid; leaves erect, linear; flower in white panicle, anther yellow, versatile.

**Habitat**: Open field and roadsides (Fig. 125).

**Regn**: By seed and root.

**Fl**: Apr. to June; **Fr**: June to Aug.

**Distrib**: (a) Sri Lanka, America, Myanmar, Malaysia; (b) Punjab, West Bengal, Assam, Meghalaya, Kashmir, Himachal Pradesh, Sikkim; (c) Salari, Dirang, 1300m to 1500m (Common).

**Part(s) and local uses**: Root against cough.

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**Form of use:** Fresh juice extract.

**Preparation:** Fresh roots are crushed and juice is extracted.

**Dose:** Two-table spoon is taken once in daily for five days.

**Other uses:** DD

**Uses:** DD

**Exsiccatum:** Salari, 26.10.2004, Kar 171.

*Juniperus recurva* Buch & Ham. (Cupressaceae).

**LN:** Shakpa/Tsang Sheng (DM).

**Descr:** Small tree; leaves of lower branches awl shaped, upper leaves scale like, bluish green, adpressed and overlapping in four ranks; fruit fleshy berry, one seeded (Common).

**Habitat:** Temperate forest (Fig. 126).

**Fr:** Sept. to Oct.

**Distrib:** (a) Nepal, China, Bhutan; (b) Kashmir, Himachal Pradesh, Sikkim; (c) Salari, Dirang, Duangba, Sangrila, Tawang, 1300m to 3200m (Common).

**Part(s) and local uses:** Leaves against paralysis and madness.

**Form of use:** Powder.

**Preparation:** Fresh leaves are dried and then made into powder.

**Dose:** One-tablespoon of powder is mixed in one-cup of warm water, once in daily for two months against madness. Two-table spoon of powder mixed in one-cup of warm water, once in daily for one month.

**Other uses:** Leaves are used as inscence (TM).

**Uses:** DD

**Market value:** (b) Rs. 585.00 per kg of dry leaf powder.

(c) Rs. 200.00 per lit of leaf oil.

**Exsiccatum:** Salari, 26.10.2004, Kar 172.

**LN:** Kolong (N).

**Descr:** Perennial herb; leaves opposite, pinnate, crenate, succulent campanulate purple; follicles with many seeds.

**Habitat:** Roadsides (Fig. 127).

**Regen:** By leaf.

**Fl:** Sept. to Oct.; Fr: Nov. to Dec.

**Distrib:** (a) Tropical Africa, Sri Lanka, Bangladesh; (b) Punjab, Assam, West Bengal, Bihar; (c) Seijusa, Bhalukpong, Dahum, 160m to 1350m (Rare).

**Part(s) and local uses:** Leaves against wound.

**Form of use:** Roasted.

**Preparation:** Fresh leaves are roasted in pan and kept for a while to cool and then applied on the affected parts and bandage is applied with the cloth.

**Dose:** Left the bandage for three days.

**Other uses:** As ornamental herb (N, DM).

**Uses:** **Ayurveda:** Leaves against insect bite.

**Unani:** Leaf used as tonic, alexipharmic, and astringent to the bowels, analgesic, carminative, useful in diarrhoea and vomiting, inflammations.

**Market value:** (b) Rs. 30.00 per kg of whole plant.

(c) Rs. 1320.00 per kg of leaf powder.

**Exsiccatum:** Bhalukpong, 26.10.2004, Kar 190.


**LN:** Tar (N).

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Descr: A shrub or small tree; leaves pinnately compound, leaflets oblong, serrate; flower greenish white in axillary corymbose cymes, berries subglobose, 3 to 6 seeded, blue or purple black.

Habitat: In roadsides (Fig. 128).

Regen: By seed.

Fl: May to Aug.; Fr: Sept. to Dec.

Distrib: (a) Philippines, China, Sri Lanka; (b) Outer Himalayas from Gharwal to Eastwards, Andaman, West Bengal, Assam, Meghalaya and Sikkim; (c) Seijusa, Bhalukpong, Tippi, Seppa, 160m to 360m (Common).

Part(s) and local uses: Stem bark used in cut and injuries.

Form of use: Paste.

Preparation: Fresh bark is crushed and made into paste.

Dose: Paste is applied on the affected parts, twice daily for three days.

Other uses: Tender leaves used as vegetables (N).

Uses: DD


Leucas ciliata Benth. (Lamiaceae).

LN: Thankchik (DM).

Descr: Annual herb; stem square with yellow hairs; leaves lanceolate, coarsely serrate, pubescent, opposite or whorl; flower head globose large, dense flowered, terminal and axillary, flower white; nutlet oblong, smooth.

Habitat: Roadsides (Fig. 129).

Regn: By seed.

Fl: May to Aug.; Fr: Sept. to Dec.

Distrib: (a) Nepal, Bhutan; (b) temperate Himalaya, Sikkim, Khasi hills; (c) Namchoo, Mokto, Sangti, Pamagarh, Bomdir, 2000m to 2400m (Common).
Part(s) and local uses: Root against food poison.

Form of use: Paste.

Preparation: Fresh root is crushed and made into paste.

Dose: One tablespoon once daily for two days.

Other uses: DD

Uses: DD


Leucas plukenetii (Roth) Spreng., Syn. Phlomis plukenetii Roth., Leucas aspera Link. (Lamiaceae).

LN: Neachetse (Ak).

Descr: Annual herb; stem quadrangular, hispid; leaves linear-oblong or lanceolate, crenate, hairy; calyx tube oblique; flower white, bilipped; fruit nutlet.

Habitat: Roadsides (Fig. 130).

Regen: By seed.

Fl: May to Aug.; Fr: Sept. to Dec.

Distrib: (a) Mauritius, Java, Philippines; (b) Bihar, Punjab, Gujarat, Kerala, Andhra Pradesh, West Bengal, Assam; (c) Seijusa, Bhalukpong, Seppa, Jamiri, Rupa, Salari, 160m to 1300m (Common).

Part(s) and local uses: Leaves against sinusitis.

Form of use: Fresh juice extract.

Preparation: Fresh leaves are crushed and juice is extracted.

Dose: Two-drop of fluid is applied in each nose once in daily for ten days.

Other uses: Tender leaves used as vegetable (Ak).

Uses: DD
**Exsiccatum**: Salari, 25.10.2004, Kar 164.

**Lindera meissneri King.** (Lauraceae).

**LN**: Brojojay (Ak).

**Descr**: Small tree; leave alternate, ovate, acuminate, lower surface pale green; flower minute yellowish white; fruit globose with aroma.

**Habitat**: In dense forest (Fig. 131).

**Regen**: By seed.

**Fl**: Jan. to Mar.; **Fr**: Apr. to May.

**Distrib**: (a) China, Bhutan; (b) Sikkim, Meghalaya, Uttaranchal; (c) Jamiri, 1300m (Rare).

**Part(s) and local uses**: Fruit against bone fracture.

**Form of use**: Paste.

**Preparation**: Fresh fruit are grinded and made into paste.

**Dose**: Paste with bears oil is applied on the affected parts and bandage is applied on the affected parts for fifteen days.

**Other uses**: DD

**Uses**: DD

**Exsiccatum**: Jamiri, 25.10.2004, Kar 166.


**LN**: Minzay (Ak); Tayer (N).

**Descr**: Small tree; leave lance shaped, lower surface pale green, scented; flower unisexual, 4 to 10 flowered bunches; fruit round 6 to 8 mm. in diam, with aromatic gland, 1 seeded.

**Habitat**: In dense forest (Fig. 132).

**Regen**: By seed.
FI: Jan. to Apr.; Fr: May to July.

Distrib: (a) China, Nepal, Bhutan; (b) West Bengal, Assam, Nagaland, Manipur, Eastern Himalaya; (c) Bhalukpong, Seppa, Jamiri, upto 215 m to 1170 m (Rare).

**Part(s) and local uses:** Fruits are used against cough (N); gastritis, dysentery and fever (AK).

**Form of use:** Paste.

**Preparation:** Fresh fruits are grinded and made into paste.

**Dose:** One-tablespoon of paste is mixed with a glass of water and consumed for **gastritis**, two-tablespoon paste is mixed in a half glass of water and consumed for dysentery **dysentery**, once in daily for three days; One tablespoon paste is mixed in one glass of water and taken against **fever**, once in daily for five days; half tablespoon is mixed in one-cup of warm water and used against **cough**, daily twice for three days.

**Other uses:** Fruits are used in chutney preparation and also used as spice (N).

**Uses:** DD

**Market value:** (a) Rs. 150.00 per kg of fresh fruit at Seppa market.

(b) Rs. 200.00 per kg of dry seed.

(c) Rs. 1608.00 per lit of oil.

**Exsiccatum:** Bhalukpong, 28.10.2004, Kar 191.


**LN:** Khla-okhu (Ak).

**Descr:** Medium sized tree; bark pale brown, rough, corky; leaves elliptic, ovate or oblong-lanceolate, acuminate; flowers yellowish in umbellate heads; fruit globose.

**Habitat:** In dense primary tropical forest (Fig. 133).
**Regen**: By seed.

**Fl**: June to Aug.; **Fr**: Sept. to Oct.

**Distrib**: (a) Sri Lanka, Malaysia, Australia; (b) Bihar, Orissa, Gujrat, Tamil Nadu, West Bengal, Assam; (c) Seijusa, Trijino, Jamiri, Bhalukpong, Tippi, Seppa, 160m to 380m (Common).

**Part(s) and local uses**: Stem bark against roundworm.

**Form of use**: Decoction.

**Preparation**: 50gm stem bark is boiled in two glass of water until the quantity become half.

**Dose**: Once in daily one glass of decoction is taken in the morning for seven days.

**Other uses**: DD

**Uses**: **Ayurveda**: Root is used as aphrodisiac and also used against bronchitis, fever and leprosy.

**Unani**: Root is used as astringent, tonic, aphrodisiac, and also used against joint pain, throat troubles, spleen disease, paralysis, and seeds as aphrodisiac.

**Market value**: (a) Rs. 8.00 per kg of dry stem bark at Bhalukpong.

(b) Rs. 5.00 per kg of dry stem bark.

**Exsiccatum**: Bhalukpong, 28.10.2004, Kar 192.

**Luculia gratissima** (Wall.) Sweet. (Rubiaceae).

**LN**: Chandan (DM).

**Descr**: Shrub; leaves alternate, elliptical; flower whitish pink fragrant; capsule elliptical.

**Habitat**: Hilly slope and roadsides (Fig. 134).

**Regen**: By seed.

**Fl**: May to Aug.; **Fr**: Sept. to Oct.
**Lycopodium clavatum** L., (Lycopodiaceae).

**LN:** Shring Chik Chao (TM); Tapong panglay (N).

**Descr:** Herbaceous pteridophytes; creeping stem bearing erect branches; branching dichotomous; leaves spirally arranged; strobili compact, elliptical.

**Habitat:** On hilly slopes (Fig. 135).

**Regen:** By spore.

**Strobili:** Aug. to Oct.

**Distrib:** (a) China, Bhutan, Nepal; (b) Himachal Pradesh, Meghalaya, Uttaranchal, Sikkim; (c) Pappu valley, Duangba, Tawang 1700m to 3200m (Common).

**Part(s) and local uses:** Whole plant except strobili is used to grow hair.

**Form of use:** Fresh plant extract.
**Preparation:** 200gm of fresh plant is crushed and added a little amount of water and then juice is extracted.

**Dose:** Applied once in daily on required parts of the head for sixty days for growth the hair.

**Other uses:** (i) Plant is used in religious ceremony (TM); (ii) also used to decorate at the time of special guest visits (N).

**Uses:** DD

**Market value:** (c) Rs. 66.00 per kg of plant powder.

**Exsiccatum:** Tawang, 25.10.2004, Kar 167.

**Mahounia nepalensis** DC., Syn. *Berberis nepalensis* (DC.) Spreng. (Berberidaceae).

**LN:** Ksho-chang (TM).

**Descr:** Shrub; leaflets narrow; margin with spine, ovate to lanceolate; flower yellow, fascicled; berry elliptic, blue when ripe.

**Habitat:** Scrubs and along roadsides (Fig. 48).

**Regen:** By seed.

**Fl:** June to July; **Fr:** July to Aug.

**Distrib:** (a) Japan, China, Nepal; (b) Himachal Pradesh, Meghalaya, Tamil Nadu; (c) Sangey, 2400m to 2600m (Rare).

**Part(s) and local uses:** Leaves to remove thorn embedded in muscle.

**Form of use:** Paste.

**Preparation:** Fresh leaves are crushed and made into paste.

**Dose:** Once daily for one day. Applied on the affected part, which soften the tissue and ultimately the thorn oozes out.

**Other uses:** DD

**Uses:** DD

**Exsiccatum:** Sangey, 7.4.2004, Kar 103.
**Mangifera indica** L., (Anacardiaceae).

**LN:** Aam (Aka).

**Descr:** Medium sized tree; stem bark rough black to brown; leaves alternate, oblong, elliptical, wavy; flower yellow; fruit drupe.

**Habitat:** Roadsides, hilly slope (Fig. 136).

**Regen:** By seed.

**Fl:** Feb. to Apr.; **Fr:** May to Aug.

**Distrib:** (a) Thailand, Mexico, Pakistan, Philippines, Nigeria, Brazil, Egypt, Sri Lanka, Bangladesh, Myanmar, China;
(b) Maharashtra, Bihar, Karnataka, West Bengal, Tamil Nadu, Assam; (c) Seijusa, Bhalukpong, Tippi, Seppa, 160m to 380m (Common).

**Part(s) and local uses:** Bark against Jaundice.

**Form of use:** Decoction.

**Preparation:** 50gm of fresh bark is boiled in four glass of water until quantity become half.

**Dose:** One glass of decoction is used for washing of hand and mouth and one glass is taken twice daily for seven days.

**Other uses:** Fruit edible (Ak).

**Uses: Ayurveda:** Stem bark is used as astringent, anthelmintic, useful in hemoptysis, hemorrhage, nasal catarrh, diarrhoea, ulcers, diphtheria, rheumatism and for lumbrici. The leaves are given in the treatment of burns, scalds and diabetes.

**Unani:** Seed used against graying of hair.

**Siddha:** The bark is used as astringent; and also used to treat diphtheria and rheumatism.

**Market value:** (b) Rs. 15.00 per kg of dry seeds.

(c) Rs. 98.00 per lit of seed oil.
**Meconopsis paniculata** (D.Don) Prain  Syn. *Papaver paniculatum*  

**LN:** Chusir (TM).

**Desc:** Herb with golden brown hairs; leaves lanceolate, pinnately lobed; yellow flower in raceme; capsule ellipsoid.

**Habitat:** in open sandy soils on rocky slopes (Fig. 137).

**Regen:** By seed.

**Fl:** July to Aug.; **Fr:** Aug. to Sept.

**Distrib:** (a) England, China, Nepal, Bhutan, Myanmar; (b) Uttarakhand, Sikkim, Darjeeling; (c) Sela, 3300m to 3900m (Rare).

**Part(s) and local uses:** DD

**Other uses:** DD

**Uses:** DD

**Market value:** (c) Rs. 264.00 per kg of plant powder.

**Exsiccatum:** Sela, 25.10.2004, Kar 170.

**Melodinus khasianus** Hook.f.  (Apocynaceae).

**LN:** Zoge (DM).

**Desc:** Small shrub; leaves linear to lanceolate, acuminate at both ends; flower in cymes, white; latex milky; fruit cylindrical, long pair.

**Habitat:** Along banks of stream and roadsides (Fig. 138).

**Regen:** By seed.

**Fl:** Oct. to Dec.; **Fr:** Jan. to Feb.

**Distrib:** (a) Bhutan; (b) Khasi mountain; (c) Tenga, Rupa, Dirang, 1400m to 1550m (Common).
**Part(s) and local uses:** Leaf against fever, dysentery (DM).

**Form of use:** Paste.

**Preparation:** Fresh leaves are crushed and made into paste.

**Dose:** One-tablespoon of paste is mixed with one cup of warm water taken once in daily for five days against fever and for four days against dysentery.

**Other uses:** DD

**Uses:** DD

**Exsiccatum:** Dirang, 28.10.2004, Kar 183.

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*Mentha arvensis* L. (Lamiaceae).

**LN:** Changaineo (TM).

**Descr:** Aromatic herb; stem maroon; leaves opposite, elliptical, sessile; flower pink.

**Habitat:** Grown in the garden (Fig. 139).

**Regen:** By cutting.

**Fl:** Oct. to Dec.; **Fr:** Jan. to Feb.

**Distrib:** (a) Bhutan, Nepal, China; (b) Uttar Pradesh, Assam, Meghalaya, Himachal Pradesh, Sikkim; (c) Salari, Tenga, Dirang, Tawang, 1300m to 3200m (Common).

**Part(s) and local uses:** Leaf against cough and stomach pain.

**Form of use:** Fresh leaf extract.

**Preparation:** Fresh leaves are crushed and juice is extracted.

**Dose:** Two-tablespoon once in daily for three days in both the cases.

**Other uses:** Leaves used as chutney (TM).
Uses: Unani: plant is used as expectorant, emmenagogue, tonic to the kidney; useful in disease of liver and spleen, asthma and joint pains.

Market value: (a) Rs. 5.00 of 50gm fresh leaf at Tawang and Rs. 3.00 at Bomdila market.
(b) Rs. 120.00 per kg of dry plant.
(c) Rs. 766.00 per lit of oil.

Exsiccatum: Salari, 28.10.2004, Kar 188.

*Mentha piperita* L. (Lamiaceae).

LN: Ghoina (DM).

Habitat: Recently introduced for cultivation at Dirang (Fig. 140).

Regen: By cutting.

Desc: Perennial aromatic herb. Leaves serrate, glaucous, oblong-lanceolate; flowers in spikes, pink; fruit nutlet.


Distrib: (a) France, Russia, Germany, America, England; (b) introduced for cultivation in Punjab, Uttar Pradesh, Himachal Pradesh, Karnataka, Kerala, Tamil Nadu; (c) Dirang village, 1550m (Common).

Part (s) and local uses: DD

Other uses: DD

Uses: Ayurveda: Peppermint is used as an antispasmodic, diuretic, choleretic and carminative and as an expectorant in bronchitis.

Siddha: The herb is useful in stomachic and carminative and used for allaying nausea, flatulence and vomiting. Bruised leaves are employed as an external application for relieving local pains and headache. A hot infusion is taken to reduce stomachache and colic diarrhoea.

Market value: (a) Rs. 3.00 per plant at Dirang.
Mesua ferrea L. Sy. Mesua thwaitesii Planch. & Triana, Mesua ferrea ssp. thwaitesii Vesque. (Clusiaceae).

LN: Lahagrin (Ak).

Descr: Medium sized tree; leaves oblong-lanceolate, acute, red when young, glaucous above, pale silvery beneath; flower white, stamen many, anther yellow, flower axillary or terminal, solitary or in pairs, mild fragrant; fruit ovoid with a conical point, surrounded by the sepals.

Habitat: In tropical dense forest (Fig. 141).

Regen: By seed.

Fl: Mar. to Apr.; Fr: May to Sept.

Distrib: (a) Bangladesh, Sri Lanka, Myanmar; (b) Mountains of Eastern Himalaya, Assam, Andaman, evergreen forests of North Kanara, South Konkan, forest of the Western Ghats, Travancore; (c) Seijusa, Bhalukpong, Tippi, 160m to 250m (Common).

Part(s) and local uses: Bark against gastritis and leaf against skin infection.

Form of use: Bark decoction; leaf paste.

Preparation: 25gm of bark is boiled in one glass of water until it become half. Twelve fresh leaves are crushed and made into paste.

Dose: Half glass of decoction is taken once in daily for seven days against gastritis. Leaf paste applied on affected parts once daily for three days against skin infection.

Other uses: Plant is used in religious ceremony and planted in the boundary as a lucky plant.
Uses: **Ayurveda:** Leaves and flower are used as digestive and also used against fever, foul breath, scabies, skin eruptions, itching, small tumours, headache, blood and heart troubles, sore throat, cough, vomiting, dysentery, bleeding piles and flowers used against piles.

**Unani:** Leaves used as carminative, cardiotonic, used against asthma, cures ulcers and piles.

**Market value:** (b) Rs. 50.00 per kg of dry stamen.

**Exsiccatum:** Bhalukpong, 28.10.2004, Kar 187.


**LN:** Hailung taru (N).

**Descr:** Perennial climber; leaves cordate, opposite, wavy, leathery; inflorescence head; flower white, minute; fruit cypsella.

**Habitat:** Roadsides, scrubs, in fencing (Fig. 142).

**Regen:** By seed.

**Fl:** Nov. to Jan.; **Fr:** Dec. to Mar.

**Distrib:** (a) Fiji, Philippines, Singapore, Myanmar, Malaysia, America; (b) Assam, West Bengal, Bihar, Uttar Pradesh; (c) Seijusa, Bhalukpong, Seppa, 160m to 380m (Common).

**Part(s) and local uses:** Leaves haemostasis in minor cuts.

**Form of use:** Fresh leaf extract.

**Preparation:** Fresh leaves are crushed and juice is extracted.

**Dose:** Juice applied on the affected parts, twice daily for two days.
**Other uses:** Stem used as rope (N).

**Uses:** DD

**Exsiccatum:** Seppa, 28.10.2004, Kar 185.

*Mirabilis jalapa* L. (Nyctaginaceae).

**LN:** Kykimento (DM).

**Descr:** Perennial herb; node swollen; leaves ovate, entire, opposite; flower variously coloured, showy; seeds black when ripe.

**Habitat:** Introduced recently and planted in the garden (Fig. 143).

**Regen:** By seed.

**Fl:** Sept. to Feb.; **Fr:** Mar. to May.

**Distrib:** (a) Tropical America, Sri Lanka, the Philippines; (b) Tamil Nadu, Andhra Pradesh; (c) Seijusa, Seppa, Bhalukpong, Saları, 160m to 1300m (Common).

**Part(s) and local uses:** Flower against mouth ulcer.

**Form of use:** Paste.

**Preparation:** Ten flowers after removing anther made into paste.

**Dose:** Paste applied on the affected parts once in daily for nine days.

**Other uses:** Planted as ornamental (DM).

**Uses:** Unani: Leaves reduces inflammations; root is used as aphrodisiac and good in syphilitic sores.

**Market value:** (c) Rs. 924.00 per kg of plant powder.

**Exsiccatum:** Salari, 29.10.2004, Kar 194.

*Murraya koenigii* (L.) Spreng. (Rutaceae).

**LN:** Chambay-tikcha (DM).

**Habitat:** Roadsides, scrubs, open forest (Fig. 144).
**Regen:** By seed.

**Descr:** Shrub; leaf compound, leaflets 11-25, ovate, serrate, aromatic, flower white; berry red when ripe become black.

**Fl:** Mar. to May; **Fr:** June to Aug.

**Distrib:** (a) China, Sri Lanka, Myanmar; (b) Andhra Pradesh, Tamil Nadu, Karnataka, Kerala, Orissa, Gujarat, Assam; (c) Bhalukpong, Tipi, Seppa, Seijusa 200m to 500m (Rare).

**Part(s) and local uses:** Leaves against gastritis and to stop vomiting.

**Form of use:** Fresh leaf extract.

**Preparation:** Fresh leaves are crushed and juice is extracted.

**Dose:** One tablespoon is taken twice, daily for seven days against gastritis. Four to five fresh leaves are crushed and aroma is inhaled to check vomiting.

**Other uses:** Leaves used in chutney (DM).

**Uses:** *Ayurveda:* Leaves and roots are used as anthelmintic, analgesic, cure piles, itching; useful in leucoderma and blood disorders.

**Market value:** (c) Rs. 6168.00 per lit of leaf oil.

**Exsiccatum:** Bhalukpong, 28.10.2004, Kar 186.

**Musa velutina Wendl.** (Musaceae).

**LN:** Kappa-lonchi (N).

**Descr:** Perennial herb; leaves long, mid rib prominent; flower bunch erect, flower pink covered with pink spathe; berry, angular, pink, tomentose; seed black, round.

**Habitat:** In tropical secondary forest (Fig. 145).

**Regen:** By rhizome.

**Fl:** May to June; **Fr:** July to Sept.
**Distrib:** (a) Bhutan, Malaysia, Indonesia, Myanmar; (b) Assam, Manipur, Sikkim; (c) Seijusa, Bhalukpong, Tippi, Sessa, Seppa, Durga mandir, 160m to 950m (Rare).

**Part(s) and local uses:** Stems against blood dysentery and fruit against painful menstrual cycle.

**Form of use:** Fresh juice of the stem; burn fruit.

**Preparation:** Juice is collected from the stem; ripen banana is burned in the fire and then ash is mixed with water (rice wash water).

**Dose:** One tablespoon is taken once in daily for five days against blood dysentery. One-teaspoon of powder is mixed in one cup of rice wash water, once daily one cup in the morning for fifteen days.

**Other uses:** Inflorescence used as vegetable (N).

**Uses:** DD

**Exsiccatum:** Durgamandir, 25.11.2004, Kar 195.


**LN:** Wamu (N).

**Descr:** Shrub; leaves opposite, broadly elliptic, flower yellow in terminal open cymes, bract white, ovate-elliptic, acuminate; berry oblong.

**Habitat:** Scrubs, in dense forest, roadsides (Fig. 146).

**Regen:** By seed.

**Fl:** May to Aug.; **Fr:** July to Sept.

**Distrib:** (a) Zaire, Kongo, Kenya, Nepal, Malaysia; (b) Tropical Himalaya,
Andaman, Konkan, Deccan, Western Ghat, North and South Karnataka, Malabar, Assam, Meghalaya; (c) Seijusa, Bhalukpong, Seppa, Jamiri, 160m to 1160m (Common).

**Part(s) and local uses:** White bract against stomach pain.

**Form of use:** Paste.

**Preparation:** Fresh bracts are crushed and made into paste.

**Dose:** One tablespoon is taken twice daily for three days.

**Other uses:** Bract used as vegetable (N).

**Uses:** DD

**Exsiccatum:** Seppa, 25.11.2004, Kar 196.


**LN:** Kachii (N); Zen sheng (DM).

**Descr:** Evergreen medium sized tree, bark aromatic; leaves lanceolate, resinous dots underside, pale; male flower cluster, long on a branched inflorescence; female flower clusters, long, glandular scaly; fruit elliptical, round stalkless, flesh red, purplish or yellowish, white when ripe, knobby (Fig. 147b).

**Habitat:** In dense tropical forest (Fig. 147a).

**Regen:** By seed.

**Fl:** Jan. to Mar.; **Fr:** Apr. to June.

**Distrib:** (a) Nepal, Bhutan; (b) Sub tropical Himalayas, Assam, Nagaland, Manipur, Meghalaya; (c) Seijusa, Bhalukpong, Tippi, Seppa, 160m to 400m (Rare).

**Part(s) and local uses:** Fruit against jaundice.

**Form of use:** Fresh juice extract.
Preparation: Half cup of Juice is extracted from ripened fruit and then boiled it for five minutes.

Dose: Half-cup juice is taken daily once for ten days.

Other uses: Fruit used as pickle (N).

Uses: Siddha: The bark is astringent; it is used in diphtheria and rheumatism;

Market value: (a) Rs. 40.00 per kg of fresh fruit at Seppa.

Exsiccatum: Seppa, 27.11.2004, Kar 197.


LN: Sekhea (DM).

Descr: Stout tufted fern; tuberous rhizome, covered with brown hair. pinnate fronds long; sorus brown.

Habitat: In rock crevices and edges of forest and wall (Fig. 148).

Regen: By tuber.


Distrib: (a) Nepal, China; (b) Meghalaya, Mizoram; (c) Durga mandir, Sessa, Salari, Dirang, Jamiri, Naychayphu, 950m to 1750m (Common).

Part(s) and local uses: Tuber against constipation.

Form of use: Boil.

Preparation: Fresh tuber is washed Properly and then boiled.

Dose: Four tubers is taken twice daily per time for three days.

Other uses: Tuber is used as vegetable (DM).

Uses: DD

*Nerium indicum* Mill., Syn *Nerium odoratum* Solander.,

**Fam:** Apocynaceae.
**LN:** Laptang Chang (DM).

**Descri:** Shrub with milky latex; leaves whorl, lanceolate; flower cluster pink in terminal inflorescence.

**Habitat:** Planted in the garden (Fig. 149).

**Regen:** By stem cutting and seed.

**Fl:** Apr. to June; **Fr:** July to Aug.

**Distrib:** (a) Afghanistan, Japan, Iran, Nepal, Myanmar; (b) Tamil Nadu, Kashmir, Madhay Pradesh, Karnataka, West Bengal, Assam; (c) Salari, Tenga, Dirang, 1300m to 1550m (Common).

**Part(s) and local uses:** Flower against pelvic louse.

**Form of use:** Fresh flower extract.

**Preparation:** Fresh flower is crushed and juice is extracted.

**Dose:** Juice is rubbed on the affected parts once daily for five days.

**Other uses:** As ornamental plant (DM).

**Uses:** DD

**Exsiccatum:** Salari, 26.10.2004, Kar 178.

*Ocimum sanctum* L., (Lamiaceae).

**LN:** Mahnjor (DM).

**Descri:** Herb; stem 15 to 60cm long with aromatic gland; leaves ovate, elliptical, alternate, aromatic, acute at the both the ends; whitish violet flower in racemes; nutlet subglobose.

**Habitat:** Planted in the garden (Fig. 150).

**Regen:** By seed.

**Fl:** June to Aug.; **Fr:** Sept. to Oct.

**Distrib:** (a) Sri Lanka, Malaysia, Australia, West Asia to Arab; (b) Punjab,
Gujarat, Maharastra, Karnataka, Kerala, Andhra Prades, Tamil Nadu, Bihar, West Bengal, Assam; (c) Seijusa, Seppa, Bhalukpong, Tippi, Salari, Dirang, 160m to 1500m (Common).

**Part(s) and local uses:** Leaves against pneumonia and ringworm.

**Form of use:** Fresh leaf extract.

**Preparation:** Fresh leaves are crushed and juice is extracted.

**Dose:** One tablespoon of black pepper powder is mixed with half cup of juice taken daily once for ten days against pneumonia. Pinch of salt is mixed with juice applied on the affected parts against ringworm.

**Other uses:** DD

**Uses: Ayurveda:** Leaves used as stomachic, anthelmintic; useful in disease of malaria, the heart and blood, leucoderma, asthma, bronchitis, vomiting, foul smells, lumbago, pains, hiccough, eye pain.

**Market value:** (b) Rs. 16.00 per kg of dry leaves.

(c) Rs. 3190.00 per lit of oil.

**Exsiccatum:** Bhalukpong, 26.10.2004, Kar 180.

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**Olea europaea** L., (Oleaceae).

**LN:** Olive (DM).

**Desc:** Small tree; leaves opposite, elliptical, glaucous, lower surface shining; flower hermaphrodite, fruit drupe ellipsoid.

**Habitat:** Recently introduced for cultivation (Fig. 151).

**Regen:** By cutting and seed.

**Fl:** May to July; **Fr:** Aug. to Oct.

**Distrib:** (a) Spain, Morocco, Mediterranean region, Pakistan, Afghanistan,
Australia, New Zealand, Orient; (b) cultivated in Himachal Pradesh, Uttaranchal; (c) Salari, 1300m (Commonly cultivated).

**Part(s) and local uses:** DD

**Other uses:** DD

**Uses:** DD

**Market value:** (c) Rs. 369.00 per lit of oil.

**Exsiccatum:** Salari, 26.10.2004, Kar 175.

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*Opuntia stricta* (Haw.) Haw. var *dillenii.* (Ker-Gawl) Benson.


**LN:** Manzee (Mi / DM).

**Descr:** Shrub with spines; leaves long, pale green, conical, broadly obovate, undulate; areoles large, bearing 4-6 prickles; glochidia numerous yellow; berry reddish purple when ripe.

**Habitat:** Along stream bank (Fig. 152).

**Regen:** By stem.

**Fl:** Dec. to Feb.; **Fr:** Mar. to June.

**Distrib:** (a) Origin in Mexico, Brazil, China, Nepal; (b) Rajasthan, Gujarat, Tamil Nadu, Andhra Pradesh, Orissa, Assam; (c) Salari, Tenga, Dirang, 1300m to 1500m (Common).

**Part(s) and local uses:** Fruit against constipation.

**Form of use:** Ripe fruit.

**Preparation:** First remove the outer skin of the fruit and then cut into two halves longitudinally and finally seeds are removed.

**Dose:** Slimy flesh of two fruits are taken daily once for five days.
Other uses: (i) Planted in the boundary of crop field to protect cattle (ii) Ripened fruit is edible and sweet in taste (Mi/DM).

Uses: Ayurveda: Plant is used as laxative, stomachic, carminative, antipyretic, burning, leucoderma, urinary complaints, tumours, ascites, piles, inflammation, anaemia, ulcers; stems are used as stomachic, cure inflammations, ascites tumour pains; flower cure bronchitis and asthma, plant juice cures syphilis.

Unani: Plant is used as digestive, carminative, diuretic, purgative and cures bronchitis of children, good for leucoderma, used in opthalmia, liver complaints, cures inflammations and earache.

Market value: (c) Rs. 3168.00 per kg of fresh fruit.


LN: Mano (N).

Habitat: In dense tropical forest (Fig. 153).

Regen: By seed.

Descr: Medium sized tree; leaves large 2-3 pinnate with opposite pinnae, rachis stout, leaflets 2-4 pairs, ovate, elliptic, acuminate, glabrous; flowers numerous, large 8-12cm in erect raceme, campanulate, yellowish purple; fruit capsule, flat 30-90 cm long; seeds with papery winged.


Distrib: (a) Sri Lanka, Myanmar, Malaysia, China; (b) throughout India except Rajasthan; (c) Seijusa, Bhalukpong, Tippi, 165m to 240m (Common).
Part(s) and local uses: Leaves and stem bark against dysentery and rheumatism.

Form of use: Decoction.

Preparation: 150 gm of stem bark and 100gm of leaves are boiled in ten glasses of water for twenty minute and then sieve it.

Dose: Daily thrice each time one glass after meal for five days against dysentery. For rheumatism, affected part is washed frequently with the same decoction, daily five times for seven days.

Other uses: Flower is used as vegetable and bitter in taste (N).

Uses: Ayurveda: Root bark is used as aphrodisiac, tonic, increase appetite, used against fever, bronchitis, intestinal worms, vomiting, dysentery, leucoderma and asthma; fruit is used as anthelmintic, used in heart disease, piles and bronchitis.

Unani: Fruit improve appetite and useful in leucoderma.

Siddha: The root bark is used as tonic and astringent and useful in diarrhoea and dysentery; it is also used as diaphoretic and to treat rheumatism.

Market value: (b) Rs. 8.00 to 16.00 per kg of dry bark.


**Oxalis corniculata** L., (Oxalidaceae).

LN: Chuay changho (TM), Dung dopse (DM); Tso (Sher); Krungshuk (N); Piyak-iyub (Mi).

Descr: Perennial herb; leaves radical with long petioles, 20-30cm. Long, leaves trifoliate, wedge shaped; flower yellow; fruit capsule.

Habitat: Roadside, Jhum field (Fig. 154).

Regen: By seed and root.


Distrib: (a) Pakistan, Sri Lanka, Malaysia, Indonesia, China, Bangladesh;
Part(s) and local uses: Leaves against conjunctivitis (DM); malaria (TM); diabetes (Mi).

Form of use: Fresh juice extract.

Preparation: Fresh leaves are crushed and juice is extracted.

Dose: One drop is applied in each eye daily once for three days against conjunctivitis; daily two tablespoon extract for fifteen days against malaria. Two tablespoon extract once daily after meal for two months against diabetes.

Other uses: Fresh leaves are used as vegetable (N).

Uses: Ayurveda: Plant helps in digestion, good for appetizer, used against piles; astringent, cures dysentery and diarrhoea, cures skin diseases and fever.

Market value: (b) Rs. 4000.00 per kg of plant powder.


**Paederia foetida** L., (Rubiaceae)

LN: Opay Taru (N); Epitari (Mi).

Descr: Annual twiner with foetid smell.

Stem thin, 5mm-1cm. in diameter; leaves opposite, ovate-lanceolate, entire, glabrous; leaves give foetid smell; flower purple, funnel shaped in axillary and terminal cyme; fruit berry, slightly oblong, red when ripe.

Habitat: Roadsides, forest (Fig. 155).

Regen: By root and seed.


Distrib: (a) Borneo, Myanmar, Malaysia, Indonesia; (b) Assam, Manipur, Tripura, Meghalaya, West Bengal, Jharkhand;
Part(s) and local uses: Leaves against gastritis (N) and dysentry (Mi).

Form of use: Fresh leaf extract.

Preparation: Fresh leaves are crushed and juice is extracted.

Dose: Three-tablespoon is taken once in daily for seven days against gastritis. One tablespoon thrice daily each time for five days against dysentry.

Other uses: Leaves used as vegetable (N).

Uses: DD

Market value: (b) Rs. 15.00 per kg of dry leaves.

(c) Rs. 293.00 per kg of leaf powder.


LN: Chakchik (TM); Karpochito (DM).

Descr: Herb; rootstock horizontal, tuberous or tubiferous (Fig. 156b a herbalist showing *Panax pseudoginseng* root); stem erect terminated by a whorl of leaves, leaflets 5 rarely 3, ovate, serrate; flower polygamous, monoecious; fruit black.

Habitat: Forest floor (Fig. 156a).

Regen: By root and seed.

Fl: June to July; Fr: Aug. to Sept.

Distrib: (a) China, Bhutan, Korea; (b) Sikkim, Khasi hills; (c) Sangey, Sangrilla, Geshila, Tawang, 2800 to 3200 m (Rare).
**Part(s) and local uses:** Root for vitality (TM), aphrodisiac and also against weakness during pregnancy (DM).

**Form of use:** Powder.

**Preparation:** Roots are washed properly in running water and then dried in sunlight, crushed and made into powder.

**Dose:** Two-table spoon daily for one month for vitality. One tablespoon is mixed in one-cup of warm cow or yak milk and then taken daily once before going to bed for aphrodisiac. Two-table spoon is mixed with a cup of warm water, once in daily for two months during pregnancy.

**Other uses:** DD

**Uses:** DD

**Market value:** (a) Rs. 100.00 per kg of dry root at Dirang.

(b) Rs. 1200.00 per kg of dry root.

**Exsiccatum:** Sangey, 26.10.2004, Kar 174.

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**LN:** Tanom (Ak); Shing-owa-shaka (TM).

**Descr:** Aromatic herb; stem square; leaves ovate, serrate, tomentose, leathery; flower in raceme, white; seed oily, aromatic, white or black.

**Habitat:** Cultivated in the Jhum field, hilly slope (Fig. 157).

**Regen:** By seed.

**Fl:** July to Aug.; **Fr:** Sept. to Oct.

**Distrib:** (a) Bhutan, Nepal; (b) Kashmir, North Bihar, Khasi hills, Sibsagar District of Assam, Nagaland, Manipur; (c) Salari, Rupa, Shergaon, Kalaktang,
Bomdila, Salari, Bameng, Jong, Tawang 1300m to 3200m (Common).

**Part(s) and local uses:** Seed improves taste and used against high blood pressure; leaves against gastritis, high blood pressure and purify blood.

**Form of use:** Seed paste and leaf juice extract.

**Preparation:** Seeds are crushed and made into paste. Leaves are crushed and juice is extracted.

**Dose:** One-tablespoon seed paste thrice in daily for ten days improves taste; two-table spoon seed pastes are mixed in one-cup water and take once daily for one month against high blood pressure. Half teacup leaf extracts is taken once in daily for twenty days against gastritis and high blood pressure. Two tablespoon of leaf extracts is taken once in daily for fifteen days to purify blood.

**Other uses:** Seed used as chutney (Ak), (TM).

**Uses:** DD

**Market value:** (a) Rs. 80.00 per kg of dry seeds at Bomdila.

(b) Rs. 1470.20 per lit of seed oil.

**Exsiccatum:** Dirang, 9.8.2004, Kar 150.


**LN:** Prekmolee (N).

**Descr:** Shrub; stem square; leaves opposite, lanceolate 15 to30cm. Long; flower arranged in elongate thyrsoid panicles upto 30 cm long; orange or brick red, rarely yellow; capsule club shaped.

**Habitat:** Scrubs, forest (Fig. 158).

**Regen:** By seed and cutting

**Fl:** Sept. to Dec.; **Fr:** Jan. to Feb.
Distrib: (a) Bhutan, Myanmar; (b) Assam, Madhaya Pradesh Chota Nagpur; (c) Seijusa, Bhalukpong, Tippi, Seppa, 160m to 380m (Common).

Part(s) and local uses: Inflorescence against skin disease.

Form of use: Decoction.

Preparation: Twenty inflorescence are boiled in one small bucket of water and the decoction is used for bathing.

Dose: Once daily for ten days.

Other uses: Inflorescence used as vegetable, bitter in taste (N).

Uses: DD

Market value: (a) Rs. 60.00 per kg of fresh inflorescence at Seppa market.
(b) Rs. 40.00 per kg of dry inflorescence.


LN: Kobolang (Mi).

Descr: Annual herb 20-40cm high; leaves pinnate, alternate, leaflets on either side of the rachis 10-20 pairs; flower minute, pale yellow, unisexual on the under side of the leaf rachis, monoecious; fruit drupe pale green, beneath the rachis (Common).

Habitat: Roadsides and grassland (Fig. 159).

Regen: By seed.

Fl: July to Nov.; Fr: Sept. to Dec.

Distrib: (a) China, Malaysia, Indonesia, Pakistan, Sri Lanka; (b) Uttar Pradesh, Bihar, Gujarat, Maharashtra, Kerala, Assam, West Bengal, Manipur; (c) Seijusa, Tippi, Bhalukpong, Seppa, Bana, 160m to 600m (Common).

Part(s) and local uses: DD

Other uses: DD
**Uses: Ayurveda:** Plant is used as diuretic and in menorrhagia; fruit and plant are acrid, sour, cooling and useful in bronchitis, leprosy, anaemia, urinary discharges, asthma and hiccough.

**Unani:** Plant used as stomachic; good for sores and in chronic dysentry; fruit bitter; useful for tubercular ulcers, wounds, sores, bruises, scabies and ringworm.

**Market value:** (b) Rs. 20.00 per kg of whole plant; Rs. 120.00 per kg of dry fruit.

(c) Rs. 880.00 per kg of plant powder.


**LN:** Honglen (DM); Hongleng Mukpo (TM).

**Descr:** Herb; root cylindrical, blackish brown; leaves spathulate, serrate; flower arranged in scapes; fruit capsule.

**Habitat:** In open grassy places, forest floor (Fig. 160).

**Regen:** Root.

**Fl:** July to Sept.; **Fr:** Sept. to Oct.

**Distrib:** (a) Nepal, Tibet region of China, Bhutan; (b) Alpine Himalaya Kashmir to Sikkim 2700-4000m; (c) Duangba, Sangey, Sangrilu, Arathree 2800m to 3200m (Rare).

**Part(s) and local uses:** Root is used against throat infection due to cold and tuberculosis and lung cancer (DM); root against malaria, dysentry, stomach pain, vertigo (TM).

**Form of use:** Root decoction and powder.

**Preparation:** 50gm of dry root is boiled in two-glass of water until it become half for prepare into of decoction. Dry root crushed and made into powder.
**Dose:** One-tablespoon powder is mixed with a cup of warm water, once in daily. One cup for six days against **throat infection.** One glass of decoction twice daily per time for five days against **tuberculosis** and **lung cancer,** one glass is taken once in daily for seven days against **malaria.** Two-table spoon powder is mixed in a one-cup of water daily twice after meal for three days against **stomach pain** and **vertigo.**

**Other uses:** DD

**Uses:** **Ayurveda:** Root is used as stomachic, cardiotonic, antipyretic, anthelmintic, laxative, appetizer and urinary discharge and against asthma, hiccough, blood troubles, burning sensations, leucoderma and jaundice.

**Unani:** Black root variety is used as antipyretic and to treat piles, inflammation, nose troubles, chest complaints, leucoderma and good for the gum and teeth.

**Siddha:** The root is mainly used in the therapy for liver and lung diseases.

**Market value:**

- (b) Rs. 150.00 to 200.00 per kg of dry root.
- (c) Rs 120.00 per kg of dry root.

**Exsiccatum:** Sangey, 9.8.2004, Kar 152.

**Pinus roxburghii Sang.** (Pinaceae).

**LN:** Lemchu (DM); Bachi (TM).

**Descr:** Big tree; needle acicular, pointed; female cone conical (Common).

**Habitat:** In temperate coniferous forest (Fig. 161).

**Regen:** By seed.

**Cone:** Sept. to Nov.

**Distrib:**

- (a) Borneo, Afghanistan, Myanmar, China;
- (b) Himachal Pradesh, Meghalaya, Jammu & Kashmir and Sikkim;
- (c) Salari, Rupa, Shergaon, Bomdila, Duangba, Dirang, Geshila, 1300m to 3000m (Common).

**Part(s) and local uses:** Resinous oil against muscle pain and joint pain.
Form of use: Warm oil.

Preparation: Required quantity of oil is warmed and then applied once the areas and massage.

Dose: Twice daily for fifteen days.

Other uses: Plant used as timber, leaves used to decorate gate entrance when special guest arrives (DM).

Uses: Siddha: The turpentine oil obtained from the chir pine is valued in medicine as a rubefacient in various rheumatic affections such as lumbago, arthritis and neuralgia. The oil is also an ingredient in many ointments, liniments and lotions for treating minor aches and pains as well as colds when applied externally.

Market value: (a) Rs. 15.00 per liter of resin oil at Salari.
(b) Rs. 11.50 per liter of resin oil.


**Piper boehmeriaeefolia** (Miq.) DC. (Piperaceae).

LN: Rasab (N).

Distrib: (a) Nepal, Bhutan, Myanmar; (b) Assam, Meghalaya, Nagaland, Sikkim; (c) Seijusa, Bhalukpong, Tipi, Seppa, Bana, 160m to 600m (Rare).

Habitat: In open moist places, along forest edges (Fig. 162).

Regen: By root.

Descr: Climber; leaves obliquely oblong, long pointed, base unequal, 5 to 7 distinct nerves, petiole short; flowers pale green, minute in pendent flexuous unisexual spikes; spikes solitary on slender stalks; fruit berry borne in dense pendent cylindric compact spikes.

Fl: June to Aug.; Fr: Sept. to Dec.

Part(s) and local uses: Leaves against muscle pain.

Form of use: Paste.
**Preparation**: Leaves are crushed and made into paste and then applied on the affected parts.

**Dose**: Thrice daily for seven days.

**Other uses**: Fruit used as spice (N)

**Uses**: DD


*Piper longum* L., (Piperaceae).

**LN**: Likadu (DM).

**Descr**: Perennial herb; rootstock erect, thick, jointed; leaves broadly, ovate, cordate, entire; spikes solitary; fruit ovoid, completely sunk in solid fleshy spike, ovoid, oblong, blackish green, glaucous (Common).

**Habitat**: Roadsides, and bridle path (Fig. 163).

**Regen**: By root.

**Fl**: July to Aug. ; **Fr**: Sept. to Dec.

**Distrib**: (a) Malaysia, Sri Lanka; (b) Kerala, Karnataka, Tamil Nadu, Andhra Pradesh, Uttar Pradesh, Assam; (c) Seijusa, Bhalukpong, Tippi, Pacha, Jamiri, 165m to 1160m (Common).

**Part(s) and local uses**: Fruit against food poisoning.

**Form of use**: Powder.

**Preparation**: Ripened fruit is dried in the sunlight and then made into powder.

**Dose**: One-tablespoon of powder is mixed with a cup of warm water; one cup is taken twice daily per time for five days.

**Other uses**: DD

**Uses**: Ayurveda: Root is used as stomachic, laxative, anthelmintic, carminative, appetizer, bronchitis, tumours, ascites (round ascites); unripened
fruit is used for cooling, biliousness; ripened fruit is used as stomachic, aphrodisiac, laxative, antidiarrhoeic, antisynergistic, used against asthma, bronchitis, fevers, leucoderma, urinary discharges, tumours, piles, diseases of the spleen, pains, leprosy, jaundice and hiccup.

**Unani:** Root & fruit is used in gout, carminative, liver tonic, stomachic, abortifacient, aphrodisiac, diuretic, digestive, joint pain, scorpion-sting and night blindness.

**Siddha:** The fruits are used for diseases of the respiratory tract, viz. cough, bronchitis and asthma. Fruit is used in cough, coryza, asthma, hoarseness of voice, bronchitis, etc.

**Market value:**
- (b) Rs. 60.00 to Rs.124.00 per kg of dry fruit.
- (c) Rs. 140.00 per kg of dry root and stem.

**Exsiccatum:** Bhalukpong, 11.6.2004, Kar 138.

**Piper nigrum** L. (Piperaceae).

**LN:** Oju (Ak).

**Descr:** Stout glabrous, perennial, climber; leaves broadly ovate, acuminate, glabrous, 5-9 nerved; flower dioecious, yellow and white; fruit globose, black when ripe (Common).

**Habitat:** Planted in the kitchen garden (Fig. 164).

**Regen:** By stem cutting.

**Fl:** June to Aug.; **Fr:** Sept. to Nov.

**Distrib:**
- (a) China, Malaysia, Sri Lanka,
- (b) Kerala, Karnataka, Tamil Nadu, Maharashtra, Uttar Pradesh, Assam,
- (c) Seijusa, Bhalukpong, Seppa, 160m to 380m (Common).

**Part(s) and local uses:** Fruit against Pneumonia.

**Form of use:** Powder.

**Preparation:** Dry fruit is crushed and made into powder. Two-table spoon of powder is mixed with a cup of warm cow milk.
Dose: Twice daily each time one cup is taken for fifteen days.

Other uses: Fruit used as spice (Ak).

Uses: Ayurveda: Fruit used as anthelmintic and for asthma, pains, throat disease, piles, urinary discharges, night blindness and malaria.

Unani: Fruit is used as carminative, aphrodisiac and for treating toothache, pain in the liver and muscles, spleen disease, leucoderma, chronic fevers, paralysis, night blindness and arthritis.

Siddha: Fruit is used in cholera, dyspepsia, flatulence, indigestion, diarrhoea and various other gastrointestinal ailments.

Market value: (b) Rs. 80.00 per kg of dry fruits and Rs. 30.00 per kg of root.
(c) Rs. 140.00 per kg of dry fruit. Rs. 726.00 per liter of oil.


LN: Sheali (TM); Gongdu maru (N); Phulang nayang ajabula (Ak); Sali (Sher).

Descr: Herbaceous plant; leaves arranged in rosette form, ovate to elliptical, radical, 5 to 7 prominent veins, entire, wavy; flowers white arranged in spike; fruit capsule.

Habitat: Road sides, hilly slope (Fig. 165).

Regen: By seed.


Distrib: (a) Bulgaria, Sri Lanka, Afghanistan, Pakistan, Myanmar; (b) Assam, Konkan, Western ghats, Nilgiris, Pulneys; (c) Seijusa, Seppa, Bameng, Pippu, Bana, Rupa, Morsing, Kalaktang, Salari, Dirang, Pamagarh, 160m to 2270m (Common).

Part(s) and local uses: Fresh leaves keep stomach cool and used against tonsillitis, haemostasis.
**Form of use:** Fresh juice extracts and paste.

**Preparation:** (i) The aqueous extract of three leaves used against tonsillitis and keep stomach cool; (ii) two fresh leaves are crushed and paste is prepared.

**Dose:** (i) Four table spoon once in daily for seven days against tonsillitis and three days to keep stomach cool. (ii) Paste is applied on cuts once daily for two days.

**Other uses:** Tender leaves are used as vegetable (Ak); (N); (Sher).

**Uses:** Unani: plant is useful in rheumatism and griping pain of the bowels; leaves and roots are astringent and used in fevers; seeds are useful in dysentry.

**Market value:** (b) Rs. 2112.00 per kg of plant powder.

**Exsiccatum:** Bhalukpong, 11.6.2004, Kar 137.

*Podophyllum hexandrum* Royle ex Camb. Syn *Podophyllum emodi*

Wall. ex Honigberger, *Podophyllum emodi* var. *hexandrum* (Wall. ex Honig.), (Podophyllaceae).

**LN:** Ulmou (TM).

**Descr:** Herb; leaves lobed; flower cup shaped; berry ellipsoidal, red.

**Habitat:** On moist grassy slopes (Fig. 166).

**Regen:** By seed.

**Fl:** June to July; **Fr:** Aug. to Sept.

**Distrib:** (a) Nepal, Bhutan; (b) Alpine region of the Himalaya Kashmir to Sikkim; (c) Sela, 3500m to 3800m (Rare).

**Part(s) and local uses:** (i) Root against bone fracture and (ii) fruit against irregular menstrual cycle, painless childbirth.

**Form of use:** (i) Root paste; (ii) Dry fruit powder and (iii) Fruit is crushed and made into pill.

**Preparation:** (i) Fresh root of two plants made into paste; (ii) Two dry fruit is made into powder; (iii) Fresh ripened fruit is grinded and made pills.

Fig. 166
Dose: (i) Paste applied on the affected parts, wrapped bandage with the cloth and left it for twelve days against bone fracture; (ii) One table spoon powder is taken daily twice for fifteen days against irregular menstrual cycle; (iii) One tablet is taken daily after meal before three months from the date of delivery.

Other uses: Used as Yak fodder (TM).

Uses: DD

Market value: (b) Rs. 500.00 to 550.00 per kg of dry root and fruit.
(c) Rs. 125.00 per kg of leaf and stem.


LN: Nano (Ak).

Descri: Perennial shrub; stem tomentose, erect, and quadrangular; leaves 10 to 15 cm long and 5 to 8 cm broad, petiolate, opposite, elliptical, serrate; flower 1 cm long, sessile, bisexual, pentameric, zygomorphic, purple, fruit nutlet.

Habitat: Grown in the garden (Fig. 167).

Regen: By seed and cutting.


Distrib: (a) Nepal, Bangladesh, Bhutan;
(b) West Bengal, Assam, Tripura, Manipur;
(c) Bhalukpong upto 230m (Rare).

Part(s) and local uses: Leaves used as pain relief after childbirth.

Form of use: Fried leaves.

Preparation: Mature leaves are fried on pan without oil and then massaged once the abdominal area.

Dose: Twice daily for fifteen days.

Other uses: Leaves used as vegetable (Ak).
**Uses**: DD
**Exsiccatum**: Bhalukpong, 6.9.2004, Kar 140.

**Pogostemon elsholtzioides** Benth., (Lamiaceae).

**LN**: Nakrang Sheng (DM).

**Descr**: Annual herb; leaves opposite, lanceolate, serrate, tomentose aromatic; flower white in axillary or terminal spike, fruit nutlet.

**Habitat**: Roadsides (Fig. 168).

**Regen**: By seed.

**Fl**: Aug. to Sept.; **Fr**: Sept. to Oct.

**Distrib**: (a) Bhutan; (b) Khasi hills, Sikkim; (c) Rupa, Dirang, Bomdila, 1400m to 2700m (Common).

**Part(s) and local uses**: Leaves against muscle swelling.

**Form of use**: Paste.

**Preparation**: Fresh leaves are crushed and made into paste.

**Dose**: Paste is applied on the affected parts once in daily for seven days.

**Other uses**: Leaves used as inscence (DM).

**Uses**: DD
**Exsiccatum**: Bomdila, 10.5.2004, Kar 122.

**Polygonatum cirrhifolium** Royle., (Liliaceae).

**LN**: Srikal (TM).

**Descr**: Perennial herb; leaves 3 to 6 whorls, linear, lanceolate, coiled tendril like tips; flower green; berry red.

**Habitat**: In open grassy places (Fig. 169).

**Regen**: By seed.

**Fl**: June to July; **Fr**: Aug. to Sept.
**Distrib:** (a) Nepal, Bhutan; (b) Kashmir, Sikkim; (c) Duangba, 2600m (Rare).

**Part(s) and local uses:** Root for vitality.

**Form of use:** Fresh extract.

**Preparation:** Fresh roots are crushed and juice is extracted.

**Dose:** One tablespoon of extract is taken daily once for one month.

**Other uses:** DD

**Uses:** DD

**Market value:** (b) Rs. 22.00 per kg of dry plant.

(c) Rs. 352.00 per kg of plant powder.

**Exsiccatum:** Duangba, 7.9.2004, Kar 145.

**Polygonum hydropiper** L. var. *flaccidum* (meissn.) Steward. Syn

*Polygonum flaccidum* Meiss. (Polygonaceae).

**LN:** Tusum Tonb (N).

**Descr:** Annual herb; leaves alternate, lanceolate, entire, ochreate stipule; flower in terminal and axillary racemes, green, when mature become pink; nutlet trigonous.

**Habitat:** Roadsides (Fig. 170).

**Regen:** By seed.

**Fl:** June to Aug.; **Fr:** Sept. to Oct.

**Distrib:** (a) China, Malaysia, Australia, Nepal, North America, North Africa; (b) Assam, Meghalaya, Manipur, Tripura, Orissa, Uttar Pradesh; (c) Seijusa, Bhalukpong, Tipi, Seppa, 160m to 380m (Common).

**Part(s) and local uses:** Whole plant against bone fracture.

**Form of use:** Paste.

**Preparation:** Plant is crushed and made into paste and applied once the affected parts and bandage is applied with the help of banana leaf.

**Dose:** Left the bandage for twenty days.
Other uses: Used to catch fish (N).
Uses: DD

**Polygonum perfoliatum** L., (Polygonaceae).

LN: Kang pan Kuay (TM); Achajay (Ak).

Descr: Prickly annual climber herb; Stem, leaf petiole, lower surface of midrib and veins covered with recurved sharp prickles; leaves alternate, deltoid, entire, stipules orbicular; Flower white or light blue in short terminal or axillary racemes; Fruit nutlet, trigonous and blue when ripe.

Habitat: Jhum land, roadsides, forest edges, scrubs, bridle path (Fig. 171).

Regen: By seed.

Fl: Nov. to Feb.; Fr: Mar. to May.

Distrib: (a) Japan, China, Singapore, Malaysia, Bangladesh; (b) Meghalaya, Assam, West Bengal; (c) Bhalukpong, Rupa, Bana, Pappu valley, Jamiri, Dirang, 220m to 1500m (Common).

Part(s) and local uses: Leaves against muscle pain (TM).

Form of use: Paste.

Preparation: 15nos of fresh leaves made into paste.

Dose: Paste is massaged on the affected parts for 10-15 minutes twice daily.

Other uses: Fresh leaves are used as vegetable (Ak).

Uses: DD

Exsiccatum: Jamiri, 11.9.2004, Kar 129.

**Polygonum runicinatum** Buch.-Ham. (Polygonaceae).

LN: Monchu (TM).
**Descr:** Annual herb; leaves membranous, cordate, amplexicaul, lobes horizontally spreading, rounded or oblong, stipule short; pink flower axillary or apical; nut opaque.

**Habitat:** On grassy slopes, roadsides (Fig. 172).

**Regen:** By seed, root.

**Fl:** June to July; **Fr:** Aug. to Sept.

**Distrib:** (a) Bhutan, Malaysia, Nepal; (b) Sikkim, Meghalaya; (c) Bomdir, Tawang, 2400m to 3200m (Common).

**Part(s) and local uses:** Stem against conjunctivitis.

**Form of use:** Fresh stem extract.

**Preparation:** Fresh stem is crushed and juice is extracted.

**Dose:** One-drop of fluid is dropped in each eye twice daily for three days.

**Other uses:** DD

**Uses:** DD

**Exsiccatum:** Tawang, 8.9.2004, Kar 149.


**LN:** Ngoray lak (TM).

**Descr:** Annual succulent herb; stem red; leaves opposite, obovate, fleshy, entire, glabrous; flower solitary, sessile, yellow; fruit capsule.

**Habitat:** Moist and shady places, crop field (Fig. 173).

**Regen:** By seed.

**Fl:** Sept. to Jan.; **Fr:** Oct. to Feb.

**Distrib:** (a) Pakistan, Afghanistan, Bangladesh, China; (b) all over India, upto
1600m in the Himalayas, Tripura, Manipur, Assam, Bihar, Punjab, Orissa, Kerala, Tamil Nadu; (c) Bhalukpong, Salari, Jamiri, Kitpi, 215m to 2100m (Common).

**Part(s) and local uses:** Leaves against stomach pain.

**Form of use:** Fresh leaf extract.

**Preparation:** Fresh leaves are crushed and juice is extracted.

**Dose:** Three tablespoon is taken thrice daily for two days.

**Other uses:** Leaves used as vegetable (TM).

**Uses:** Unani: Plant used against fever, headache and polydipsia.

**Exsiccatum:** Salari, 7.9.2004, Kar 142.

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**LN:** Rapsiang (TM).

**Descr:** Annual herb; leaves silky, leaflets elliptic oblong or ovate, obtuse, serrate, clothed beneath with silvery hairs; flower panicled or corymbose, yellow; fruit achene, small; root brownish yellow.

**Habitat:** On grassy slopes, roadside, open forest (Fig. 174).

**Regen:** By seed, and root.

**Fl:** May to July, **Fr:** Aug. to Sept.

**Distrib:** (a) Bhutan, Nepal; (b) temperate Himalaya, Sikkim, Khasi hills, (c) Bomdir, Tawang, 2400m to 3200m (Common).

**Part(s) and local uses:** Root against teethache, fever, cough.

**Form of use:** Fresh root extract.

**Preparation:** Fresh roots are crushed and juice is extracted.

**Dose:** Juice is applied on the affected parts once in daily for seven days. Two tablespoon is taken once in daily in the morning for ten days against fever and cough.
**Pothos scendens** L., (Araceae).

LN: Chuay changho (Ak).

**Descr:** Perennial rooting climber 1-3m; stem producing roots on each node by which they anchor to the support; leaves lanceolate, petiole wing shaped; flower yellow, berry pulpy red.

**Habitat:** In primary tropical forest (Fig. 175).

**Regen:** By seed.

**Fl:** May to Aug.; **Fr:** Aug. to Oct.

**Distrib:** (a) China, Malaysia, Sri Lanka; (b) Assam, Meghalaya, West Bengal, Bihar, Uttaranchal; (c) Seijusa, Bhalukpong, Tippi, Seppa, 160m to 380m (Common).

**Part(s) and local uses:** Leaves against bone fracture.

**Form of use:** Paste.

**Preparation:** 200gm of fresh leaves crushed and made into paste and applied on the affected part and bandage is wrapped with the help of cloth or banana leaf.

**Dose:** Left the bandage for fifteen days.

**Other uses:** DD

**Uses:** DD

**Exsiccatum:** Bhalukpong, 9.9.2004, Kar 147.

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**Prunus persica** (L.) **Batsch.** Syn. **Amygdalus persica** L.

(Rosaceae).

LN: Shoburay (Ak); Sangkom (N).
**Descr:** Shrub or small tree; leaves lanceolate, entire, glandular at base; flowers in fascicles occur with new leaves, white; drupes, ellipsoid, velutinous fleshy.

**Habitat:** Scrubs and in forests (Fig. 176)

**Regen:** By seed.

**Fl:** Jan. to Apr.; **Fr:** May to July.

**Distrib:** (a) Nepal, Iran, Iraq, Afghanistan, Pakistan, China; (b) Sikkim, Khari hills, Manipur, Assam; (c) Seijusa, Bhalukpong, Seppa, Jamiri, 160m to 1160m, (Common).

**Part(s) and local uses:** Root against teethache and fruit against constipation.

**Form of use:** Root extract; ripe fruit.

**Preparation:** Root is crushed by adding a little amount of water and then juice is extracted. Remove the outer skin of ripe fruit.

**Dose:** Two tablespoon extract is applied on the affected part daily once for five days against teethache. Five fresh ripened fruit is consumed directly against constipation, once in daily for three days.

**Other uses:** Fruit edible (Ak), (N).

**Uses:** Unani: Leaves are used as anthelmintic, vermicidal, used in leucoderma and in piles; flower used as galactagogue; fruit is used as aphrodisiac, antipyretic, tonic to the brain enriches the blood, removes bad smell from the mouth and the sputum; seed oil is abortifacient, good in piles, deafness, earache, stomach troubles of children.

**Market value:** (a) Rs. 40.00 per kg of ripe fruit at Seppa.

(c) Rs. 1659.00 per kg of dry leaf.

**Exsiccatum:** Bhalukpong, 7.4.2004, Kar 104.

**Pseudulvella sp.** Walle., (Chlorophyceae).

**LN:** Nomak Machring (DM).
**Descr:** Fresh water green algae; epilithic; thallus leathery, dichotomously branched; loosely cells are enveloped by mucilaginous layer.

**Habitat:** Running stream (Fig. 177a).

**Regen:** By fragmentation.

**Thallus found:** Sept. to Nov.

**Distrib:** (a) America; (b) Arunachal Pradesh; (c) Salari, Dirang 1300m to 1500m (Endemic).

**Part(s) and local uses:** Thallus against gastritis.

**Form of use:** Boil.

**Preparation:** Fresh thallus are washed properly and then boiled it for half an hour.

**Dose:** Take 25gm with meal once daily for fifteen days.

**Other uses:** Thallus used as vegetable (DM).

**Uses:** DD

**Market value:** (a) Rs. 1800.00 per kg of dry thallus at Bomdila market (Fig. 177b dish form dried *Pseudulvella sp* selling in the market).

**Exsiccatum:** Salari, 2.8.2002, Kar 01.

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**Psidium guajava** L., (Myrtaceae).

**LN:** Bepsile sheng (DM).

**Descr:** Small tree; bark smooth; leaves opposite decussate, oblong or elliptic oblong, entire, pubescent beneath; flower white, 1-3 flower clustered together; fruit globose or pyriform berry.

**Habitat:** Grown in the garden (Fig. 178).
**Regen:** By stem cutting and seed.

**Fl:** May to Aug.; **Fr:** Aug. to Oct.

**Distrib:** (a) Mexico origin, Tropical America, China, Indonesia; (b) Uttar Pradesh, Bihar, Orissa, Maharastra, Assam; (c) Seijusa, Bhalukpong, Tippi, Jamiri, 160m to 1160m (Rare).

**Part(s) and local uses:** Tender leaves against blood dysentry and diarrhoea.

**Form of use:** Fresh leaf extract.

**Preparation:** Fresh tender leaves are crushed by adding a little amount of water and juice is extracted.

**Dose:** Half teacup is taken once in daily for five days for both the cases.

**Other uses:** Fruits are edible (Ak).

**Uses:** **Ayurveda:** Fruit is used as cooling agent and aphrodisiac.

**Unani:** Leaves used against wound and ulcers; flower cools the body, used against bronchitis, applied in sore eyes; anther helps to dry wounds; cool the heated brain, fruit used as tonic and cooling agent, good in colic and for bleeding gums.

**Market value:** (b) Rs.30.00 per kg of fresh fruit.

(c) Rs. 88.00 per kg of fresh fruit.

**Exsiccatum:** Seijusa, 16.12.2003, Kar 46.

**Pueraria tuberosa** DC., (Papilionaceae).

**LN:** Manthakui (DM); Mapjay (Ak).

**Descr:** Large twiner; root tuberous perennial old root 10 to 15kg, brown, fibrous, juice white oily; leaves 3 foliolate, pubescent, stipulate, ovate, oblong to cordate, terminal leaf broadly ovate, whitish green beneath; flowers in panicle racemes; purple or blue; pod flat, costricted between the seeds, clothed with brown hairs.

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Fig. 179
Habitat: Roadsides (Fig. 179).

Regen: By rhizome.


Distrib: (a) Nepal, Bhutan; (b) West Himalaya to Sikkim upto 1500m; lower hills of the Punjab, Mount Abu, hilly tracts of Bengal and South India; (c) Bhalukpong, Jamiri, Salari, 215m to 1300m (Common).

Part(s) and local uses: Root for vitality.

Form of use: Fresh root extract.

Preparation: Fresh roots are collected and skin is removed and then crushed and oily juice is extracted.

Dose: One cup once in daily after meal for fifteen days.

Other uses: Root used as vegetable (Ak).

Uses: Ayurveda: Flower is used as cooling and aphrodisiac; tuber is used as cooling, aphrodisiac, tonic, galactagogue, diuretic, clears the voice, cures leprosy, biliousness, blood diseases, burning sensation and urinary discharges.

Market value: (b) Rs. 345.00 per kg of dry root.
               (c) Rs. 240.00 per kg of dry root.


LN: Thalam (DM).

Descr: Small tree; stem armed with small axillary or terminal thorns; leaves opposite, oblong-lanceolate, oblong-elliptic, glabrous, entire; flower solitary, red; fruit balausta, globose, tipped with the calyx limb, rind coriaceous, red; seed contain pink juice with watery outer coat.

Habitat: Cultivated in hilly slope

Fig. 180
Regen: By cutting and seed.


Distrib: (a) Iran, Iraq, Afghanistan, Balkans; (b) cultivated in Bihar, Uttar Pradesh, Maharastra, Karnataka, Haryana, Assam; (c) Salari, Tenga, and Dirang, 1300m to 1500m (Common).

Part(s) and local uses: Fruit juice against hoarseness voice and for blood purification; fruit rind used of check vomiting; promote flow of urine and against roundworm.

Form of use: Fresh juice and rind powder.

Preparation: Juice is extracted from the ripened fresh fruit and used for good voice and to blood purification. Rind of the ripened fruit is dried in sunlight and then crushed and made into powder.

Dose: One-cup of juice is taken daily in the morning after meal for fifteen days to help to keep voice good; One-cup of juice is taken twice daily for one-month helps to purify blood. One-tablespoon of rind powder is mixed with a cup of warm water once in daily for two days to check vomiting. One-tablespoon rind powder is mixed with a glass of water; One glass twice daily for fifteen days to help to promote flow of urine. One tablespoon of rind powder is mixed with a cup of warm water, daily once in the morning for seven days against roundworm.

Other uses: Fruit edible (DM).

Uses: Ayurveda: Root is used as vermicide; stem bark and seeds are used against bronchitis; flower used against epistaxis; unripe fruits are useful as appetizer, tonic, useful in vomiting. Ripened fruit as tonic, astringent to the bowels, aphrodisiac, causes biliousness, burning sensation of the body, fever, heat disease, sore throat, stomatitis and rind as anthelmintic, used against diarrhoea, dysentery and leaves against menorrhagia.
Unani: Stem bark is used as astringent, strengthen the gums, piles; flower as styptic to the gums, check vomiting, sore eyes, gum ulcers, sore throat; unripped fruit lessens inflammations; ripened fruit as tonic, laxative, diuretic, enrich the blood, sore throat, sore eyes, brain diseases, spleen complaints, chest troubles, scabies, bronchitis, earache; seeds as astringent to the bowels, enrich the blood, used in vomiting, sore eyes, scabies, liver and kidney disorder, diarrhoea, dysentery and prolapse of anus.

Siddha: Rind used against diarrhoea and dysentery.

Market value: (a) Rs. 20.00 per kg of fresh fruit at Dirang market.
(b) Rs. 30.00 per kg of fresh fruit.
(c) Rs. 2127.00 per lit of rind oil.


LN: Chutsa (DM).

Descr: Herb; stem stout; leaves broadly ovate, base cordate, root stock very stout, yellowish brown; flower dark reddish purple in dense branched clusters in 20 to 30cm. long inflorescence; fruit nutlet ovoid, purple, with narrow wings.

Habitat: In open sandy soils on rocky slopes (Fig.181).

Regen: By seed.

Fl: May to July; Fr: Aug. to Sept.

Distrib: (a) Nepal, Bhutan; (b) Kashmir, Himachal, Sikkim; (c) Sela 3300m to 3700m (Rare).

Part(s) and local uses: Tuber against malaria and useful for thirst.

Form of use: Decoction; directly chewing
Preparation: 50gm of fresh tuber is crushed and boiled in two glass of water until quantity become half.

Dose: One glass once in daily for twenty days against malaria. Piece of fresh tuber is chewed and keep away thrist for a while used specially by the yak rider.

Other uses: DD

Uses: Ayurveda: Tuber pungent, bitter; used as tonic, laxative; useful in dysentery, ulcers and loss of appetite.

Unani: Tuber used as purgative, emmenagogue, diuretic; useful in biliousness, heating of the brain, sore eyes, piles, chronic bronchitis, chronic fever, asthma and bruises.

Market value: (b) Rs. 60.00 to 70.00 per kg of dry tuber.
(c) Rs. 148.00 to 156.00 per kg of dry tuber.


**Rhododendron arboreum Smith ssp. nilagiricum (Zenker)**


LN: Wodung mento (TM); Khanda mento (Sher); Balong (Mi); Chu-mento (DM).

Descr: Small tree leaves lanceolate to oblong, narrowed at both ends, flower red or nearly white, stamen 10; fruit capsule.

Habitat: Forest, hilly slope, roadsides (Fig. 182).

Regen: By seed.

Fl: Apr. to May; Fr: July to Sept.

Distrib: (a) Nepal, Myanmar, Bhutan; (b) Temperate Himalaya, Kashmir to Arunachal Pradesh 1600m to

Fig. 182

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Part(s) and local uses: Flower against food poison, fever and to remove fish cartilage from tongue (TM), (Sher) and fever (Mi).

Form of use: Fresh flower is directly taken after removing anther against food poison, fish cartilage and fever.

Preparation: Fresh flower.

Dose: (i) Four flower is consumed daily twice each time to remove fish cartilage from tongue for two days; (ii) seven flower is taken once in daily for three days against food poison and fever.

Other uses: flower used in inscence and religious ceremony (TM).

Uses: DD


LN: Sirpo Mento (TM).

Descr: Shrub; leaves elliptic, obtuse, glabrous, corolla, campanulate, yellow or white, flower yellow, campanulate; stamens 10; fruit capsule.

Habitat: In the gorges, hilly slopes, deep forest (Fig. 183)

Regen: By seed.

Fl: Mar. to Apr.; Fr: May to June.

Distrib: (a) Nepal, Bhutan; (b), Sikkim, Himachal Pradesh, Uttaranchal; (c) Sangrila, Naychayphu, Sangey, Bomdila, 1750m to 2900m (Rare).

Part(s) and local uses: Flower against jaundice.

Form of use: Fresh juice extract.

Preparation: 10 fresh flowers are taken after removing anther by adding a little amount of water grinded and juice is extracted
**Dose:** Three table spoon once in daily for seven days.

**Other uses:** Flower used in inscence (TM).

**Exsiccatum:** Sangey, 27.9.2002, Kar 16.


**LN:** Gaysy (DM); Moitulung (Sher).

**Descr:** Small tree; leaf compound, leaflets elliptic or oblong, acuminate, rusty beneath, glaucous above; flower yellow in panicle; fruit scattered on the panicles, when ripe become red.

**Habitat:** Roadside and forest edges, hilly slope (Fig. 184).

**Regen:** By seed.

**Fl:** May to July; **Fr:** Aug. to Sept.

**Distrib:** (a) Nepal, Bhutan; (b) Sikkim, Darjeeling, Khasi hills; (c) Salari, Rupa, Dirang, 1300m to 1500m (Common).

**Part(s) and local uses:** Fruit improves digestion system.

**Form of use:** Fresh fruit.

**Preparation:** Fruit is directly taken.

**Dose:** Five ripe fruits are taken after meal daily once for fifteen days.

**Other uses:** Fruit edible (Sher); (DM).

**Exsiccatum:** Dirang, 27.9.2002, Kar 18.

*Rynchostylis retusa* (L.) Bl., (Orchidaceae).

**LN:** Owang-luk (DM).

**Descr:** Epiphytic creeping herb; leaves broadly linear, fleshy, curved; flower purple, fragrant in long cylindrical pendulous spike; capsule ribbed, small.

**Habitat:** Dense tropical forest (Fig. 185).
Regen: By seed.

Fl: Mar. to May; Fr: June to Aug.

Distrib: (a) Malaysia, Singapore, Bhutan, Nepal, China; (b) Uttarakhand, Sikkim, Assam, Nagaland, Manipur, Kerala; (c) Sessa, Rupa, Kalaktang, Dirang, 1000 to 1700m (Common).

Part(s) and local uses: Inflorescence used against skin infection.

Form of use: Paste.

Preparation: Fresh inflorescence made into paste and then applied on the affected parts.

Dose: Once daily for ten days.

Other uses: Grown as ornamental (Ak).

Uses: DD

Exsiccatum: Dirang, 16.11.2003, Kar 34.

*Ricinus communis* L., (Euphorbiaceae).

LN: Dantha (TM).

Descr: Glabrous herb; stem fistular; leaves alternate, palmately lobed; lobes 7 or more, serrate; flower monoecious in raceme; fruit prickly capsule of three valved cocci; seeds oblong, black, cotyledons broad.

Habitat: Roadsides, banks of stream, in scrubs (Fig. 186).

Regen: By seed.

Fl: June to July; Fr: Aug. to Sept.

Distrib: (a) Africa, Zimbabwe, Madagascar, New Guiana, China, cultivated tropical countries;
(b) Assam, West Bengal, Bihar, Uttar Pradesh, Maharastra; (c) Bhalukpong, Tenga, Salari, Rupa, 160m to 1400m (Common).

**Part(s) and local uses:** Seeds against joint pain.

**Form of use:** Paste.

**Preparation:** Mature seeds are crushed and made into paste and boiled heat it for five minutes and then applied on affected parts.

**Dose:** Twice daily for five days.

**Other uses:** DD

**Uses: Ayurveda:** Root is used as carminative, used against pains, ascites, fever, asthma, bronchitis, leprosy; leaves are used against intestinal worms, night blindness, earache; flower is useful in tumours, vaginal pain, fruit appetizer, tumours, piles, liver disease; seed is used as aphrodisiac, anthelmintic, tumours, heart disease, inflammations, typhoid, pain in the back, leprosy, elephantiasis root filariasis and oil used in sciatica.

**Unani:** Root purgative, used in skin disease; leaves galactagogue, burns; seed oil useful in liver troubles, pains in the body, boils, piles, ringworm, paralysis, ascites, asthma rheumatism, dropsy.

**Market value:** (c) Rs.1628.00 per lit of seed oil.

**Exsiccatum:** Bhalukpong, 17.12.2003, Kar 47.

**Rosa chinensis Jacq., Fam:** (Rosaceae).

**LN:** Ghealay (DM).

**Descr:** Evergreen shurb, glabrous, bushy rose; stipules narrow, adnate almost to the top; flower large on long pedicel, rarely single, red; achene coriaceous embedded in the calyx tube.

**Habitat:** Cultivated in the garden (Fig. 187).

**Regen:** By cutting.
**Rosmarinus officinalis** L., (Rosaceae).

**L N:** Rosmary (DM).

**Descr:** Aromatic herb, leaves linear, whitish green, alternate to whorl; flower pale violet, bilipped.

**Habitat:** Recently introduced for cultivation in the garden (Fig. 188).

**Regen:** By cutting.

**Fl:** June to Aug.; **Fr:** Sept. to Oct.

**Distrib:** (a) Spain, France, Dalmatiana islands, Italy, Tunasia, Morocco, Mediterranean region; (b) Introduced for cultivation in Himachal Pradesh; (c) introduced 1500m (Common).

**Part(s) and local uses:** DD

**Other uses:** DD

**Uses:** DD

**Market value:** (c) Rs. 1952.00 per lit of oil
**Exsiccatum**: Dirang, 27.9.200, Kar 22.


**LN**: Tsot (TM); Mailong (N); Sau (KM); Cho (Sher); May (Ak); Laingi (Mi).

**Descr**: Perennial, herbaceous climber; stem quadrangular; leaves four in each node; flower golden yellow; fruit globose black when ripe; leaves four in a whorl; berry black when ripe.

**Habitat**: Hilly slope, primary forest, along forest margin (Fig. 189a).

**Regen**: By root.

**Fl**: Aug. to Sept.; **Fr**: Oct. to Dec.

**Distrib**: (a) Tropical Africa, Sri Lanka, Java, Japan; (b) Himachal Pradesh, Uttarakhand, Sikkim, Meghalaya; (c) Sessa, Jamiri, Salari, Dirang, Sangey, Rupa, Kalaktang, Shergaon, Morshing, Mokto, Pamagarh, Bameng, Pappu valley, Rahum, Bomdila, 1250m to 2700m (Common).

**Part(s) and local uses**: Stem against gastritis and keep stomach cool (TM); stem and root used against high blood pressure, fever and antipoisoning (Mi).

**Form of use**: (i) Infusion (ii) decoction.

**Preparation**: (i) 50gm of dry stem kept in one glass of water for overnight; (ii) 100gm of fresh root is boiled in two glasses of water.

**Dose**: (i) One glass daily for ten days in the morning for both the cases. (ii) One glass daily against fever and food poisoning for two days (iii) One glass daily against high blood pressure for fifteen days.

**Other uses**: Root is used as natural dye (Ni), (Sher), (KM), (Ak). Tender red leaves are used as vegetable (Mi).
**Uses: Ayurveda:** Root is used as antidysentric, antipyretic, analgesic, anthelmintic, improves voice and complexion; used against the diseases of the uterus, the vagina, eye, ear and blood; cures leucoderma, ulcers, urinary discharges, jaundice, piles; leaves appetizer, fruit is used to cures diseases of the spleen and gout.

**Unani:** Root is used as diuretic and for eye sores, paralysis, lethargy, liver complaints, enlargement of the spleen, joint pain, rheumatism, leucorrhoea, leucoderma, dysentery and uterine pain.

**Siddha:** Roots are used as tonic, antiseptic, used in rheumatism; useful in skin infections, ulcers, inflammation and other skin disorders.

**Market value:** (a) Rs. 5.00 per kg of dry root at Rahum (Fig. 189b root drying on the roof of a hut at Rhum), Rs. 8.00 at Saper, Rs. 15.00 at Rupa; Rs. 20.00 at Morsing.

(b) Rs. 37.00 to 40.00 per kg of dry root.

**Exsiccatum:** Dirang, 27.9.203, Kar 23.

**Rubus ellipticus Smith.,** (Rosaceae).

**LN:** Taning (N); Mulung (DM); Mulangha (Sher);

**Descr:** Shrub; prickles scattered stout; leaflets 3 orbicular, elliptic, obtuse, serrate, pubescent beneath, flower yellow, fruit globose, drupe on a cylindric hairy receptacle, many, yellow, succulent.

**Habitat:** Roadsides, scrubs (Fig. 190).

**Regn:** By seed.

**Fl:** May to July; **Fr:** Aug. to Sept.

**Distrib:** (a) Bhutan, Sri Lanka, Myanmar, Nepal;
(b) Sikkim, Khasi hills, Western Ghats, temperate and sub tropical Himalaya 700m to 2300m; (c) Seppa, Bana, Khuppi, Ramda, Bameng, Chyangtaju, Salari, Rupa, Kalaktang, Morsing, Mokto, Jong, Dirang, Sangey, Bomdila, 400m to 2700m (Common).
**Part(s) and local uses:** Fruit used as refreshment (DM).

**Form of use:** Juice.

**Preparation:** Fresh ripened fruit is crushed and juice is extracted.

**Dose:** Consume once in daily a cup after hard labour for one month.

**Other uses:** Fruit edible (N); (DM); (Sher).

**Uses:** DD

**Market value:** DD


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**LN:** Hanchi (N).

**Descr:** Biennial straggling scendent shrub; leaves and stem armed with hooked prickles; leaves lobed, serrate; flower white; fruit drupe, red, succulent, globose.

**Habitat:** Along forest edges (Fig. 191).

**Regen:** By seed.

**Fl:** Aug. to Dec.; **Fr:** Nov. to Feb.

**Distrib:** (a) Myanmar, Sri Lanka, Nepal, Sikkim; (b) Assam, Western ghat, Meghalaya, Sikkim; (c) Bhalukpong, Tippi, Seppa Sessa, 215m to 1250m (Common).

**Part(s) and local uses:** Fruit as appetizer

**Form of use:** Juice extract.

**Preparation:** Fresh ripened fruits are crushed and juice is extracted.

**Dose:** Half a cup once in daily for five days.

**Other uses:** Fruit edible (N).

**Uses:** DD

**Exsiccatum:** Bhalukpong, 16.12.2003, Kar 49.

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**Rumex acetosella** L., (Polygonaceae).

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LN: Shaydong (DM); May-kay-oung (Sher).

**Descr:** Perennial herb; leaves variable in breadth and form, lower leaves petioled, lanceolate or hastate, uppermost sessile; flower in raceme, minute; fruit 3 gonous.

**Habitat:** Roadsides, hilly slope (Fig. 192).

**Regn:** By seed.

**Fl:** Apr. to May; **Fr:** June to Aug.

**Distrib:** (a) Bulgaria, Europe, North Africa, North Asia; (b) Sikkim, Darjeeling; (c) Tenga, Rupa, Namchoo, Bomdila, 1400m to 2600m (Common).

**Part(s) and local uses:** Leaves against dysentery.

**Form of use:** Fresh juice extract.

**Preparation:** Fresh leaves are crushed and juice is extracted.

**Dose:** Two-table spoon thrice daily per time for five days.

**Other uses:** Leaves used as vegetable, sour in taste (Sher).

**Uses:** DD

**Market value:** (c) Rs. 1439.00 per kg of plant powder.

**Exsiccatum:** Namchoo, 28.9.2003, Kar 29.

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**Rumex nepalensis** Spreng., (Polygonaceae).

LN: Nat Ong (DM); Shomang (Mi); Folampu (TM).

**Descr:** Herb; leaves entire, oblong to ovate; flower bisexual, red; inner fruiting sepals with broad much toothed wings, wings pectinately toothed, teeth usually hooked at the tip.

**Habitat:** Open grass field, hilly slopes (Fig. 193).

**Regen:** By root.

**Fl:** Sept. to Oct.; **Fr:** Nov. to Dec.
Distrib: (a) Madagascar, Nepal, Bhutan and Myanmar; (b) Temperate Himalaya 300m to 3800m, Western Ghat, Nilgiri and Pulney hills; (c) Rupa, Bomdila, Salari, Arathree, 1300m to 3500m (Common).

Part(s) and local uses: (i) Root against wound and muscle swelling (DM); sound cough (TM); (ii) malaria (Mi).

Form of use: (i) Paste (ii) decoction.

Preparation: (i) 100gm of fresh root is made into paste and applied on the affected portion; paste of one root is mixed with a glass of water (ii) two fresh root is boiled in a glass of water until quantity become half.

Dose: (i) Massage on the affected parts daily once for three days for both the cases; daily one glass is consumed for three days against sound cough; (ii) One glass daily once for ten days after meal.

Other uses: DD

Uses: DD


LN: Yuwa (TM).

Descr: Ground orchid; leaves narrow, elliptic to linear with sheathing base; flower in dense spike, two downaward projecting spur in flower, pink; fruit capsule.

Habitat: In grassland, roadside, on the side of briddle path (Fig. 194).

Regen: By seed.
Fl: May to July; Fr: Aug. to Sept.
Distrib: (a) China, Sri Lanka, Myanmar, Nepal, Bhutan; (b) Kashmir, Himachal Pradesh, Sikkim; (c) Bomdir, Duangba, Sangey, upto 2300m to 2800m (Common).

Part(s) and local uses. Root against malaria, skin infection and for vitality.

Form of use: Decoction and paste.

Preparation: Five fresh root is crushed and boiled in one glass of water until quantity become half.

Dose: Half glass is taken once in daily for ten days against malaria; for vitality half glass once daily for fifteen days. Paste is applied on the affected parts twice daily for three days.

Other uses: DD

Uses: DD


*Saurauia fasciculata* Wallich., (Actinidiaceae).

LN: Naflang-dang (DM).

Descr: Shrub; leaves elliptic to oblong, lower surface rusty; flowers in cyme, white or pink; berries globose, redish brown when ripe.

Habitat: In dense forest, bridle path (Fig. 195).

Regen: By seed.

Fl: May to July; Fr: Aug. to Sept.

Distrib: (a) Bhutan, Myanmar, Nepal;
(b) Sikkim, Meghalaya; (c) Sessa, Salari, Dirang, 1200m to 1500m (Common).

Part(s) and local uses: Fresh fruit to generate blood corpuscles.

Form of use: Ripe fruit.

Preparation: Fresh fruits are directly consumed.

Dose: Five fruits is taken once in daily for twenty days.
**Saussurea gossypiphora D.Don.,** (Asteraceae).

**LN:** Ounjee-suru (Mi); Gangla mento (TM).

**Descr:** Prickly herb; stem 20 to 40cm. stout, hollow; leaves linear, coarsely toothed or lobed, embedded in dense woolly hairs; flower head purple, deeply embedded in wooly hairs and densely clusters.

**Habitat:** In open sandy soils, on rocky slopes (Fig. 196).

**Regen:** By seed.

**Fl:** June to Aug.; **Fr:** Aug. to Sept.

**Distrib:** (a) Nepal; (b) Sikkim, Kashmir; (c) Sela top 13,500m to 13,700m (Rare).

**Part(s) and local uses:** Root against hoarseness voice due to excess cool (Mi) and flower against skin infection (DM).

**Form of use:** Root decoction; flower paste.

**Preparation:** 50gm of fresh root is crushed and boiled in one glass of water until quantity become half.

**Dose:** Twice daily each time half glass for five days against hoarseness of voice. Fresh flower paste is applied over the affected parts daily once for fourteen days.

**Other uses:** DD

**Uses:** DD

**Exsiccatum:** Sela, 28.9.2003, Kar 28.

**Descr:** Evergreen tree; leaves oblong to lanceolate, ovate, entire, flowers solitary, axillary, white, fragrant; fruit globose, capsule, 5 celled.

**LN:** Sala sheng (DM).

**Habitat:** In dense forest, along riverbank (Fig. 197).

**Regen:** By seed.

**Fl:** May to July, **Fr:** Aug. to Sept.

**Distrib:** (a) China, Nepal, Bangladesh, Myanmar, Bhutan; (b) Assam, Meghalaya, Manipur, Kalimpong, Manipur, Meghalaya; (c) Sessa, Pakke, Pappu Valley, 1250m to 1500m (Common).

**Part(s) and local uses:** Flower against skin infection.

**Form of use:** Paste.

**Preparation:** Fresh flower is crushed and made into paste.

**Dose:** Paste is applied over the affected parts daily thrice for two days.

**Other uses:** Plant used as fuel timber (DM).

**Uses:** DD

**Exsiccatum:** Pappu Valley, 10.11.2003, Kar 32.

**Sida rhombifolia** L., Syn. Sida rhomboidea Roxb. ex Fleming., Sida rhombifolia var. rhomboidea (Roxb. ex Fleming) Masters; Sida rhombifolia var. obovata Wallich ex Masters., Sida rhombifolia var. microphylla (Cav.) Masters., (Malvaceae).

**LN:** Mosbu Chikshe (Ak).

**Desc:** A herb; leaves ovate or rhomboid; stipules equal in each pair; flower solitary or axillary, yellow; mericarp with awns.

**Habitat:** Roadsides (Fig. 198).

**Regen:** By seed.
**Smilax perfoliata Lour.**, Syn. *Smilax prolifera* Roxb., (Liliaceae).

**LN:** Thopla (N).

**Descr:** A robust climber, with stout prickly stem; leaves ovate to oval; flower in umbel 1 to 3; whitish yellow; berries spherical, red when ripe.

**Habitat:** Roadsides, scrubs (Fig. 199).

**Regen:** By seed.

**Fl:** July to Aug.; **Fr:** Sept. to Oct.

**Distrib:** (a) Indonesia, Myanmar, China, Pakistan; (b) Assam, Nagaland, Tripura, Mizoram, Karnataka; (c) Seijusa, Bhalukpong, Sessa, 160m to 1250m (Common).

**Part(s) and local uses:** Stem against bone fracture.

**Form of use:** Paste.

**Preparation:** Fresh stem crushed and made into paste.

**Dose:** Paste applied on the affected area and then wrapped with cloth and tied properly. Left the bandage for fifteen days.

**Other uses:** Tender shoot used as vegetable (N).
Uses: DD


LN: Khalanji (DM); Bangka (N).

Descr: Perennial herb; branches covered with stellate hairs & prickles; leaves ovate, acute, prickly on both sides; flower in racemose extraaxillary cymes; purple; berry globose, yellow when ripe.

Habitat: Jhum field, roadsides, forest floor, in scrubs (Fig. 200).

Regen: By seed.


Distrib: (a) China, Philippines, Sri Lanka, Malaysia; (b) Karnataka, Kerala, Tamil Nadu, Orissa, Bihar, Uttarakand, West Bengal, Assam, Manipur; (c) Bhalukpong, Jamiri, Rupa, Morsing, Nafra, Salari, Seijusa, Bana, Seppa, Pappu valley, 220m to 1600m (Common).

Part(s) and local uses: Fruit against headache, high blood pressure, round worm (DM); root against jaundice and fruit against diabetes (N).

Form of use: Mature fruit is directly taken.

Preparation: Fruit directly used; 50 gm of fresh root is boiled in one glass of water until quantity become half against jaundice.

Dose: Three fruits once daily for five days against headache; five fruits once daily for twenty days against high blood pressure; five fruit daily once for three days against round worm; four fruits twice daily for three months to control diabetes; half glass decoction once daily for seven days against jaundice.

Other uses: Fruit used as vegetable (N).
Uses: **Ayurveda**: Root is used as anthelmintic, removes foulness of the mouth, useful in cardiac troubles, used against leucoderma, fever, asthma, bronchitis, vomiting; fruit is used as anthelmintic.

**Unani**: Root used as digestive, astringent to the bowels, anthelmintic, remove foulness of the mouth, cardiac troubles, used against leucoderma, fever, asthma, bronchitis, vomiting; fruit is used as anthelmintic, and in leucoderma, bronchitis, asthma, fever and eye disease.

**Market value**: (a) Rs. 100.00 per kg of fresh fruit at Seppa market.
(b) Rs. 15.00 per kg of dry plant.
(c) Rs. 295.00 per kg of dry plant.


*Solanum gilo* Raddi., (Solanaceae).

**LN**: Banka (N).

**Descr**: Herb; leaves alternate, wavy, broadly elliptical; flower white; berry ribbed, very bitter, become red when ripe.

**Habitat**: Grown as cash crop (Fig. 201).

**Regen**: By seed.

**Fl**: Jan. to Mar.; **Fr**: Apr. to June.

**Distrib**: (a) Kenya, Zaire, Zimbabwe, Congo, South Africa; (b) Meghalaya, Manipur, Himachal Pradesh; (c) Seppa, Bomdila, 365m to 2500m (Common).

**Part(s) and local uses**: Raw fruits against stomach pain.

**Form of use**: Paste.

**Preparation**: Two fresh fruits are made into paste.

**Dose**: Paste is taken with meal once in daily for five days.

**Other uses**: Fruit used as vegetable (N).

Uses: DD
**Market value:** (a) Rs. 30.00 per kg of fresh fruit at Bomdila; Rs. 40.00 per kg of fresh fruit at Seppa.
(c) Rs. 94.00 per kg of dry seed.

**Exsiccatum:** Seppa, 20.5.2005, Kar 204.

*Solanum torvum* Swartz. (Solanaceae).

**LN:** Hati Bangka (N).

**Descr:** Perennial shrub 2-3 m. high with sparingly short thorns and sparsely stellate hairs; leaves alternate, lobed, ovate, covered with stellate hairs; flower white in axillary branched cyme; berry globose, 1.5 to 2cm across.

**Habitat:** Roadsides, scrubs (Fig. 202).

**Regen:** By seed.

**Fl:** Sept. to Nov.; **Fr:** Dec. to Feb.

**Distrib:** (a) Turkey, Thailand, Japan, Fiji, Philippines, Brazil, China, Malaysia; (b) West Bengal, Assam, Manipur, Mizoram, Tripura, Kerala; (c) Seijusa, Bhalukpong, Tippi, Seppa, Durga mandir, 160m to 950m (Common).

**Part(s) and local uses:** Fruit against roundworm and tonsillitis.

**Form of use:** Paste and fresh fruit.

**Preparation:** Mature fruits are crushed and made into paste, one-teaspoon paste is mixed with a cup of warm water and used against round worm.

Daily five young fruits are directly taken by chewing.

**Dose:** Once in daily for seven days against roundworm. Five young fruits are chewed once daily for five days against tonsillitis.

**Other uses:** Fruit used as vegetable (N).

**Uses:** DD

**Market value:** (a) Rs. 50.00 per kg of fresh fruit at Seppa.

**Exsiccatum:** Durgamandir, 20.5.2005, Kar 206.
**Solanum viarum** Dunal, Syn. *Solanum khasianum* Cl. var. *chatlerjeeanum* Gupta., (Solanaceae).

**LN**: Khagi (DM); Harun banka (N); Achkapeo (Ak); Sougchok (Sher); Nippu koppa (Mi).

**Descri**: Annual herb; stem and leaves covered with hairs and prickle; leaves alternate, lobed; flower white bisexual; fruit berry 2.5cm across, spherical, yellow when ripe.

**Habitat**: Roadsides, forest, in scrubs (Fig. 203).

**Regen**: By seed.

**Fl**: June to Aug.; **Fr**: Sept. to Dec.

**Distrib**: (a) Turkey, Bangladesh, Bhutan, Nepal; (b) Meghalaya, Assam, West Bengal; (c) Bhalukpong, Seppa, Rupa, Jamiri, Dirang, Seppa, Kitpi, 220m to 2200m (Common).

**Part(s) and local uses**: (i) Mature fruit against leech attack (DM); (ii) ripened fruit against teethache (Ak; Sher; Mi), and (iii) body louse (N).

**Form of use**: (i) Fresh mature fruits are cut in to two-pieces in mid way (ii) smoke of the burn fruit (iii) fruit paste.

**Preparation**: (i) directly use (ii) fruit burn on fire (iii) two ripe fruit made into paste by adding a little amount of water.

**Dose**: (i) Section fruits are massaged on feet and hands before going to jungles (ii) smoke of two burning fruits are inhaled orally once in daily for seven days (iii) two fruit paste is rubbed on the affected portion externally.

**Other uses**: DD

**Uses**: DD

**Market value**: (b) Rs. 15.00 per kg of mature fruits.

**Exsiccatum**: Jamiri, 20.5.2005, Kar 205.

LN: Hulu zan pa (TM); Dangbu khajay (Sher); Horba (N).

**Descr:** Annual herb 30 to 60 cm tall; leaves alternate, ovate - lanceolate; flower small in umbellate cymes, white; berry become black when ripe.

**Habitat:** Forest, hilly slope, roadsides (Fig. 204).

**Regen:** By seed.

**Fl:** Aug. to Oct.; **Fr:** Nov. to Mar.

**Distrib:** (a) Sri Lanka, Afghanistan, China, Bangladesh, Pakistan; (b) Karnataka, Kerala, Bihar, Orissa, West Bengal, Sikkim, Nagaland, Manipur, Tripura; (c) Seijusa, Bhalukpong, Jamiri, Nafra, Rupa, Bameng, Seppa, Bana, 160m to 1300m (Common).

**Part(s) and local uses:** Fruit against weakness (TM) and diabetes (N).

**Form of use:** Fresh fruit.

**Preparation:** Mature fruit is directly taken.

**Dose:** Five fruits once in daily for fifteen days against weakness. Five fruits once in daily for two months to control diabetes.

**Other uses:** Young fruits and tender leaves are used as vegetable (Sher), (N).

**Uses:** Unani: Fruit used against fever and diarrhoea.

**Market value:** (a) Rs. 10.00 per bundle of young shoot at Seppa market. (b) Rs. 40.00 per kg of dry plant; Rs. 200.00 per kg of dry seed. (c) Rs. 22.00 per kg of dry plant.

**Exsiccatum:** Bana, 11.11.2003, Kar 33.


**LN:** Balakhar (TM).

**Descr:** Perennial herb; stem ribbed; lower leaves narrowly oblanceolate, subacute, entire, pinnatifid, middle and upper leaves.
lanceolate, linear, abruptly acuminate, auricled; inflorescence umbellately corymbose; flowers yellow, pappus white, silky; fruit achene.

**Habitat:** Roadsides, cropfield (Fig. 205).

**Regen:** By seed

**Fl:** Sept. to June; **Fr:** Feb. to Apr.

**Distrib:** (a) Pakistan, Bangladesh, Sri Lanka; (b) Uttaranchal, Punjab, Himachal Pradesh, Sikkim, Assam; (c) Salari, Tenga, Kitpi, Mokto, 1300m to 2275m (Common).

**Part(s) and local uses:** Root against cough.

**Form of use:** Fresh root extract.

**Preparation:** Fresh root is crushed and juice is extracted.

**Dose:** Daily once three table spoon for five days.

**Other uses:** DD

**Uses: Unani:** Root used as diuretic and good in chronic fever

**Market value:** (a) Rs.10.00 per kg of fresh root at Kitpi.

(c) Rs. 95.20 per kg of dry root.

**Exsiccatum:** Mokto, 21.5.2003, Kar 208.

*Sphenomeris chinensis* (L.) Maxon. (Dennstaedtiaceae).

**LN:** Ropdok (DM).

**Desc:** Terrestrial fern; rhizome short creeping, densely covered with paleae; paleae hair like; fronds bi or tripinnate, lanceolate, upto 20cm, glabrous, pinnae much dissected, dichotomously forked into 4 to 8 pinnules; pinnules rhomboids each again forked into 2 to 4 lobes, lobes subulate; sori marginal on free veinlets; indusium attached at base and sides; spore bean shaped with one longitudinal dark slit, light brown.

**Habitat:** In dense moist forest (Fig. 206).

**Regen:** By rhizome and spore.
**Sorus**: Jan. to Apr.

**Distrib**: (a) China, Malaysia, Singapore; (b) Meghalaya, Sikkim, Manipur; (c) Salari 1300m to 1500m (Rare).

**Part(s) and local uses**: Leaves against malaria.

**Form of use**: Decoction.

**Preparation**: 100gm of leaves are crushed and boiled in two glass of water until quantity become half.

**Dose**: One glass is taken twice daily per time for ten days.

**Other uses**: DD

**Uses**: DD

**Exsiccatum**: Salari, 11.11.2003, Kar 36.

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**Spilanthes clava** DC., Syn. *Spilanthes acmella* var. *clava* (DC.) Cl.


**LN**: Ahungmong (N); Dugoneo (Ak).

**Descr**: Annual herb; leaves opposite, ovate, acute, crenate; flower head ovoid, yellow, solitary; ray flower and ligules very often absent; achene, oblong or obovoid.

**Habitat**: Roadsides, grassland (Fig. 207).

**Regen**: By seed.

**Fl**: May to July; **Fr**: Aug. to Oct.

**Distrib**: (a) Sri Lanka, Madagascar, Philippines, China, all warm countries;
Part(s) and local uses: Flower head against earache and teethache (N); flower head dysentery and gastritis (Ak).

Form of use: Fresh extracts.

Preparation: Flower head is crushed and juice is extracted.

Dose: Two drop of juice is applied on the affected ear once in daily for six days against earache. Fresh flower head is chewed and keep on the gum and of the affected teeth, which relieve the pain and cure the infected gum. One tablespoon daily for five days against dysentry and gastritis.

Other uses: Tender shoot used as vegetable (N).

Uses: DD

Market value: (a) Rs.10.00 per bundle of young shoot at Seppa market.
(c) Rs. 704.00 per kg of dry flower head.

Exsiccatum: Jamiri, 11.11.2003, Kar 38.


LN: Raikey (N).

Descr: Annual twiners; leaves alternate, entire, base round; flower yellow, bisexual and unisexual; fruit spherical, oblong, orange red when ripe; root shallow spreading; gall like big root stock are formed at the base, root stock, perennial, yellow.

Habitat: Roadsides, scrubs (Fig. 208).

Regen: By tuber.

Fl: Apr. to June; Fr: May to Sept.

Distrib: (a) Australia, China, Japan, Archipelago, Malaysia, Myanmar;
(b) West Bengal, Sikkim, Assam; (c) Seppa, Jamiri, Sali, 215m to 380m (Common).
**Part(s) and local uses:** Leaves against, urinary trouble, malaria, headache.

**Form of use:** Fresh leaf extracts and paste.

**Preparation:** Fresh leaves are crushed and juice is extracted.

**Dose:** Two-table spoonful of extract is mixed with a cup of water and taken once in daily for eight days to promote flow of urine. Three-table spoonful extract is mixed with a cup of warm water and taken twice daily for fifteen days against malaria. Crushed leaves are applied on the forehead against headache, daily twice for four days.

**Other uses:** Tuber used in skin infection of cattle (N).

**Uses:** DD

**Exsiccatum:** Seppa, 11.11.2003, Kar 39.

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**Swertia angustifolia** Ham., (Gentianaceae).

**LN:** Chakhu (Mi).

**Descr:** Herb; branching angles; narrowly winged; leaves linear lanceolate, calyx and corolla 4 lobed, corolla white or pale blue, one gland on each lobe.

**Habitat:** Roadsides (Fig. 209).

**Regen:** By seed.

**Fl:** June to Aug.; **Fr:** Sept. to Nov.

**Distrib:** (a) Bhutan; (b) Sikkim, Uttarakhand, Himachal Pradesh; (c) Dirang, Namchoo, Bomdila 1500m to 2500m (Common).

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**Part(s) and local uses:** Root against round worm.

**Form of use:** Fresh root extract.

**Preparation:** Fresh root is crushed and juice is extracted.

**Dose:** Two-table spoon of extract once daily in the morning for ten days.

**Other uses:** DD
Swertia bimaculata Sez. (Gentianaceae).

LN: Titta (DM).

Descr: Herb; stem angular; leaves elliptic to lanceolate; corolla lobes marked with green spots; stigma sessile; flower white or yellowish green; capsule elliptical.

Habitat: in scrubs, roadsides (Fig. 210).

Regen: By seed.

Fl: June to July; Fr: Aug. to Sept.

Distrib: (a) Nepal, Bhutan; (b) Sikkim, Himachal Pradesh, Darjeeling; (c) Dirang, Bomdila, 1500m to 2500m (Rare).

Part(s) and local uses: Stem against roundworm.

Form of use: Infusion.

Preparation: Two-piece of 10cm dry stems soaked in one glass of water for overnight.

Dose: One glass once in daily for seven days.

Other uses: DD

Uses: DD


LN: Serba Guddu (DM); Mosbe chikse (Ak); Manchok (Sher); Achakbak (KM).
**Descr:** Herb; leaves broadly lanceolate; calyx and corolla four lobed, corolla green yellow, tinged with purple, two glands on each lobe; fruit capsule.

**Habitat:** Forest, roadsides, hilly slope (Fig. 211).

**Regen:** By seed.

**Fl:** June to Aug.; **Fr:** Sept. to Oct.

**Distrib:** (a) Bhutan, Nepal; (b) Temperate Himalaya 1200-3000m, Kashmir, Khasi hills 1200-1500m, Sikkim; (c) Salari, Dirang, Kalaktang, Duangba, Kitpi, Chyangtaju, Bomdila 1300m to 2700m (Common).

**Part(s) and local uses:** (i) Root against Tuberculosis and stem against gastritis (Ak); (ii) stem against jaundice, fever and high blood pressure (DM); stem against fever (Sher, KM).

**Form of use:** (i) Decoction; (ii) Infusion.

**Preparation:** (i) 50gm of root is boiled in one glass of water until it becomes half (ii) 10cm of two-pieces of dry stem kept in one glass of water for overnight.

**Dose:** (i) Half glass once daily for fifteen days against tuberculosis; stem infusion against gastritis daily once for six days; (ii) One glass of infusion once in daily for ten days against jaundice and high blood pressure and one glass daily once for five days against fever.

**Other uses:** DD

**Uses: Ayurveda:** Plant is used as anthelmintic, antipyretic, antiperiodic, leucoderma, inflammations, burning sensations, pain in the body, urinary discharges, ulcers, asthma, bronchitis, leucorrhoea, piles, bad taste in the mouth, and also good for vomiting during pregnancy.

**Unani:** Plant is used as tonic, stomachic, reduce inflammations, and improve eyesight, scabies, relief joint pain, leucoderma, skin disease and chronic fever.
Market value: (a) Rs. 30.00 at Bomdila; Rs. 20.00 at Duangba; Rs. 15.00 at Kalaktang; Rs. 25.00 at Dirang per kg of dry stem.
(b) Rs. 115.00 to 200.00 per kg of dry stem.
(c) Rs. 160.00 per kg of dry stem.

Swertia dilatata C.K. Clarke. (Gentianaceae).
LN: Nyangsho (DM).
Descr: Herb; leaves glabrous; minutely ciliate, elliptic to lanceolate; flower greenish yellow, purple spot near the base; capsule elliptical.
Habitat: in scrubs, roadsides (Fig. 212).
Regen: By seed.
Fl: June to Aug.; Fr: Sept. to Oct.
Distrib: (a) Nepal, Bhutan; (b) Sikkim, Darjeeling; (c) Dirang, Bomdila, 1500m to 2500m (Rare).
Part(s) and local uses: Stem against roundworm.
Form of use: Infusion.
Preparation: Two-piece of 10cm dry stem soaked in one glass of water for overnight.
Dose: One glass of infusion once in daily for seven days.
Other uses: DD
Uses: DD

Swertia hookerii Clarke. (Gentianaceae).
LN: Rinku (Mi).
**Descr.** Herb; stem quadrangular, leaves opposite elliptic to lanceolate, narrowed; flower numerous, yellowish green; capsule long.

**Habitat:** in rock crevices, grassy slopes (Fig. 213).

**Regen:** By seed.

**Fl:** June to Aug.; **Fr:** Sept. to Oct.

**Distrib:** (a) Bhutan; (b) Sikkim, Darjeeling; (c) Sela, 3930m to 3950m (Rare).

**Part(s) and local uses:** Root against painful delivery, diarrhoea, malaria and to generate blood corpuscles (root bitter in taste).

**Form of use:** Paste, juice extract and decoction.

**Preparation:** Fresh root is washed properly and then crushed and paste is prepared. Fresh root is crushed and juice is extracted. 100gm of dry root boil in half lit of water for 10 minutes.

**Dose:** Two-table spoon paste is mixed with one-cup of warm water, one cup once daily for one month during pregnancy to give painless delivery. Two table spoon extract once daily for five days against diarrhoea. Four table spoon juice extract daily once for ten days against malaria. One glass of decoction once in daily for fifteen days to generate blood corpuscles.

**Other uses:** DD

**Uses:** DD

**Market value:** (b) Rs. 12.00 per kg of dry root.

**Exsiccatum:** Sela, 20.5.2005, Kar 218.

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**Swertia nervosa** Wall. (Gentianaceae).

**LN:** Shyom - lang- mento (Mi).

**Descr:** Herb; stem quadrangular, leaves opposite elliptic to lanceolate, 3 nerved, panicles many flowered, corolla lobes greenish yellow with one orbicular gland near the base of each lobe; capsule elongate.
**Habitat:** On the side of foot track; in open grassy places, forest edges (Fig. 214).

**Regen:** By seed.

**Fl:** July to Aug.; **Fr:** Sept. to Oct.

**Distrib:** (a) Nepal; (b) Sikkim, Bhutan; (c) Salari, Bomdirt, Bomdila 1300m to 2700m (Rare).

**Part(s) and local uses:** Root against hookworm.

**Form of use:** Fresh juice extract.

**Preparation:** Fresh root is crushed and juice is extracted.

**Dose:** Three-table spoon once in daily for seven days.

**Other uses:** DD

**Uses:** DD

**Exsiccatum:** Bomdila, 22.5.2005, Kar 225.


**LN:** Kisbejay (Ak).

**Descr:** Medium sized tree; leaves alternate, elliptical to ovate, wavy, glaucous; flower yellowish white; fruit berry, globose, dark blue or black.

**Habitat:** Roadsides, hilly slope (Fig. 215).

**Regen:** By seed.

**Fl:** May to June; **Fr:** June to Aug.

**Distrib:** (a) Fiji, Bangladesh, Pakistan, Myanmar, Malaysia; (b) Assam, West Bengal, Tripura, Orissa, Bihar, Punjab, Madhaya Pradesh, Maharastra, Kerala; (c) Seijusa, Bhalukpong, Seppa, 160m to 380m (Common).

**Part(s) and local uses:** DD
**Other uses:** Fruit edible (Ak).

**Uses:** DD

**Market value:** (b) Rs. 20.00 per kg of ripened fruits at Seppa.

(c) Rs. 500.00 per kg of seed powder.


*Tagetes erecta* L. (Asteraceae).

**LN:** Mejayba (Ak).

**Descr:** Annual herb, with branch; leaves pinnately compound, segments lanceolate serrate; flower orange yellow; fruit cypsella.

**Habitat:** Planted in the garden (Fig. 216).

**Regen:** By seed.

**Fl:** Sept. to Feb.; **Fr:** Mar. to May.

**Distrib:** (a) Origin in Mexico, Canada, Russia, Korea, China, Japan, Sri Lanka; (b) West Bengal, Uttar Pradesh, Orissa, Bihar, Maharashtra, Punjab; (c) Bhalukpong, Rupa, Salari, Jamiri, Seppa, Bameng, Bomdila, 220m to 2700m (Common).

**Part(s) and local uses:** Leaves against pneumonia (Ak).

**Form of use:** Fresh juice extract.

**Preparation:** Fresh leaves are crushed and juice is extracted. Two-table spoon of pepper powder and five-basil leaf paste is mixed with half-cup of juice.

**Dose:** Half cup once in daily, for fifteen days.

**Other uses:** As ornamental (Aka).

**Uses:** Ayurveda: Flower used in fever.

**Unani:** Leaves used in piles, kidney troubles, muscular pain, juice earache and ophthalmia; flower used as astringent carminative, stomachic, good for teethache and gums; scabies, scorpion and snake poisoning, liver complaints and bleeding piles.

**Market value:** (c) Rs. 3168.00 per lit of oil.
**Exsiccatum:** Bhalukpong, 22.5.2005, Kar 230.

**Taxus baccata** L. (Taxaceae).

**LN:** Teshing (TM); Hingalap (Sher).

**Descr:** Big tree; branches horizontal, wide spreading; leaves long, 2-3cm, linear, flattened, distichous, acute, narrowed; flower dioecious, male flowers catkins, female flowers, solitary, axillary; fruit disk, enlarges, succulent, red.

**Habitat:** Dense temperate forest, hilly slopes and gorges (Fig. 217).

**Regen:** By seed.

**Cone:** Sept. to Oct.

**Distrib:** (a) North America, North Africa, Europe, East Asia, Myanmar; (b) temperate Himalaya 2000 - 4000 m, Khasi hills; (c) Mokto, Shergaon, Bomdila, Jigaon, Zimithang, 2270m to 3300m (Rare).

**Part(s) and local uses:** Leaves improve immune system.

**Form of use:** Fresh juice extract.

**Preparation:** Fresh leaves are crushed and juice is extracted. One-tablespoon of extract is mixed with a cup of warm water and then add a spoon of honey in the mixture.

**Dose:** One cup once in daily for seven days.

**Other uses:** Leaves used to catch fish (Sher).

**Uses:** DD

**Market value:** (a) Rs. 5.00 per kg of fresh leaves and bark at Jigaon. (Now sale is band)
(b) Rs. 40.00 to Rs. 60.00 per kg of fresh leaves and barks.
(c) Rs. 1408.00 per kg of stem bark.

**Exsiccatum:** Mokto, 22.5.2005, Kar 236.
**Terminalia chebula Retz.** (Combretaceae).

**LN:** Barua Sheng (DM).

**Descr:** Medium sized tree; leaves ovate or elliptic with a pair of large glands at the top of the petiole; flowers yellowish white, in terminal spikes; drupe ellipsoidal, ovoid, yellow, ribbed.

**Habitat:** In tropical forest (Fig. 218).

**Regen:** By seed.

**Fl:** May to July; **Fr:** Aug. to Oct.

**Distrib:** (a) Myanmar, Sri Lanka; (b) Sub Himalayan tracts, West Bengal, Assam, Tamil Nadu, Madhya Pradesh and Maharastra; (c) Seijusa, Bhalukpong, Tippi, Seppa, 160m to 380m (Rare).

**Part(s) and local uses:** Fruit against cough and as vitality

**Form of use:** Powder.

**Preparation:** Fruit fleshes are crushed and made into powder.

**Dose:** Two-table spoon powder daily after meal for ten days for both the cases.

**Other uses:** Fruits are edible (DM).

**Uses:** *Ayurveda:* Dry fruit used as stomachic, tonic, carminative, expectorant, anthelmintic, antidisenteric, useful in asthma, sore throat, thirst, vomiting, hiccough, eye disease, heart disease, urinary discharges, ascites, tumours, bleeding piles, typhoid fever, leucoderma, constipation, anaemia, gout and elephantiasis.

**Unani:** Ripened fruits are used as purgative, tonic, carminative, enriches the blood, useful in opthalmia, disease of the spleen, piles, strength the brain, eye, and gum and also used in paralysis.

**Market value:** (b) Rs. 8.50 per kg of dry stem bark and Rs. 40.00 per kg of dry fruit.
**Thalictrum foetidum** DC. (Ranunculaceae).

**LN:** Noting (TM); Makroung (Mi).

**Descr:** Perennial herb; rhizome fibrous, yellow, bitter; leaf sheaths expanding into adnate stipule, leaflets orbicular, cordate often three lobed, pale beneath; flower in panicle, white, minute; achene 6 to 8 as long as their stalks, obovate, dorsal suture straight.

**Habitat:** Roadsides, forest floor (Fig. 219).

**Regen:** By rhizome.

**Fl:** June to July; **Fr:** Sept. to Oct.

**Distrib:** (a) China, Nepal, Bhutan; (b) Temperate Himalayas Kulu to Sikkim; (c) Salari, Sangey, Lhou, Mokto 1300m to 2270m.

**Part(s) and local uses:** Rhizome against malaria, roundworm (TM); and against tuberculosis (Mi).

**Form of use:** Paste.

**Preparation:** Fresh root is crushed and paste is prepared.

**Dose:** Two-tablespoon paste is mixed with a cup of water, once daily for nine days against malaria and same dose for seven days against roundworm. One-tablespoon paste is mixed with a cup of warm water; thrice daily each time one cup for fourteen days against tuberculosis.

**Other uses:** DD

**Uses:** DD

**Market value:** (a) Rs. 60.00 per kg of rhizome at Sangey.

(c) Rs. 44.00 per kg of dry seed.

**Exsiccatum:** Mokto, 25.5.2005, Kar 275.

**Thalictrum foliolosum** DC. (Ranunculaceae).
LN: Yengchera (DM); Lahamuching (KM).

Distrib: (a) Myanmar, China, Thailand; (b) throughout the Himalayas, 1600m to 2500m, Khasi hills, Manipur, Sikkim; (c) Rupa, Dirang, Sangey, Ramda, Mokto, Kitpi, Pamagarh, 1500m to 3400m (Common).

Habitat: Hilly slopes, roadsides (Fig. 220a).

Regen: By rhizome.

Descr: Perennial herb; leaves pinnately decompound; petiole sheaths auricled; flower white; fruit achene, oblong, acute at both the ends, ribbed.

Fl: Sept. to Oct.; Fr: Nov. to Dec.

Part(s) and local uses: Rhizome against blood dysentery and malaria (DM)

Form of use: Fresh rhizome extract.

Preparation: 50 gm of fresh rhizome is grinded by adding a little amount of water and juice is extracted.

Dose: Four-table spoon daily once for three days in the morning against blood dysentery; two table spoon thrice daily per time for ten days against malaria.

Other uses: DD

Uses: Unani: Rhizome improves eyesight, useful in toothache, acute diarrhoea, piles, nail troubles, discoloration of the skin, used as brain tonic, used in opthalmia.

Market value: (a) Rs. 60.00 per kg of dry rhizome at Sangey (Fig. 220b a tribal lady is processing rhizome at Sangey).

**Thunbergia grandiflora** (Rottl. & Willd) Roxb. (Acanthaceae).

**LN:** Podomjor (DM).

**Descr:** Climber; leaves opposite on the swollen nodes, cordate, serrate, 5-7 nerved at the base, tomentose upper surface; flowers blue or white; capsule with beak 3-3.5cm long, 4 seeded.

**Habitat:** Dense primary forest (Fig. 221).

**Regen:** By seed.

**Fl:** May to Aug.; **Fr:** Sept. to Oct.

**Distrib:** (a) Singapore, China, Myanmar, Bangladesh; (b) Bihar, West Bengal, Sikkim, Assam, Manipur; (c) Bhalukpong, Sessa, Seppa, 220m to 1200m (Common).

**Part(s) and local uses:** DD

**Other uses:** Flower used as vegetable (Ak).

**Uses:** DD

**Market value:** (c) Rs. 88.00 per kg of leaf powder.

**Exsiccatum:** Bhalukpong, 23.5 2005, Kar 260.


**LN:** Chakoo-sha (Ak).

**Descr:** Tall perennial grass; root brown, fibrous; culm solid, smooth, rounded; leaves large, elliptical, surface rough; flower in panicles.

**Habitat:** Hilly slope, forest, (Fig. 222).

**Regen:** By root and seed.

**Fl:** Sept. to Oct.; **Fr:** Oct. to Nov.
**Distrib**: (a) New Guinea, Myanmar, Korea, Malaysia; (b) Nicobar Islands, West Bengal, Assam; (c) Seijusa, Elephant flat, Tippi, Salari, 160m to 1300m (Common).

**Part(s) and local uses**: Root against waist pain.

**Form of use**: Paste.

**Preparation**: Fresh root is crushed and made into paste.

**Dose**: Paste is applied on the affected parts and massaged, daily twice for seven days.

**Other uses**: Inflorescence used as broom (Ak).

**Uses**: DD

**Market value**: (b) Rs. 7.00 per kg of dry inflorescence.

**Exsiccatum**: Elephant flat, 23.5.2005, Kar 239.

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**Tropaeolum majus** L., (Tropaeolaceae).

**LN**: Aheng mento (DM).

**Descr**: Annual herb; stem whitish green; leaves alternate, peltate, flower yellowish orange.

**Habitat**: Introduced from outside for cultivation in the garden, roadsides (Fig. 223).

**Regen**: By root.

**Fl**: May to Oct.; **Fr**: Nov. to Jan.

**Distrib**: (a) France, Germany, Sri Lanka, Myanmar; (b) Meghalaya, Assam; (c) Bomdila, 2500m to 2600m (Common).

**Part(s) and local uses**: Flower against skin infection.

**Form of use**: Paste.

**Preparation**: Fresh flowers are made into paste.

**Dose**: Paste is applied on the affected parts once in daily for five days.
Other uses: Planted as ornamental (DM).

Uses: DD

Exsiccatum: Bomdila, 23.5.2005, Kar 238.

_Typha elephantina_ Roxb. (Typhaceae).

LN: Tay (DM).

_Descr:_ Tall plant, 2-4 m high; leaves linear, mid vein prominent; flowering spikes are cylindrical, pale brown, male flower above female flower below; achene brown.

_Habitat:_ Stream bank, roadsides (Fig. 224).

_Regen:_ By seed.


_Distrib:_ (a) Algeria, Sudan, Naimibia, Pakistan, Korea; (b) Gujarat, Tamil Nadu, Maharashtra, Andhra Pradesh, Orissa, West Bengal, Assam; (c) Jamiri, 1100m to 1160m (Rare).

_Part(s) and local uses:_ Root against backache.

_Form of use:_ Paste.

_Preparation:_ Root is crushed and made into paste.

_Dose:_ Paste is applied on the affected parts once in daily for twelve days.

_Other uses:_ DD

_Uses:_ _Ayurveda:_ Plant is used as cooling, aphrodisiac and good for the eyes and also useful in treating burning sensation, leprosy.

_Market value:_ (b) Rs. 150.00 per kg of dry puff.

_Exsiccatum:_ Jamiri, 25.5.2005, Kar 263.

_Typhonium diversifolium_ Wall., (Araceae).

LN: Dawa (DM).
**Descr:** A tuberous herb; leaves hastate, 3-5 lobed; neuters flower above the female; fruit berry.

**Habitat:** Forest, grassland (Fig. 225).

**Regen:** By root.

**Fl:** May to July; **Fr:** Aug. to Sept.

**Distrib:** (a) Nepal, Bhutan; (b) Sikkim, West Bengal; (c) Duangba 2500m to 2700m (Rare).

**Part(s) and local uses:** Root used against tuberculosis, fever and roundworm

**Form of use:** Decoction.

**Preparation:** 50gm of fresh root is crushed and is boiled in one glass of water until quantity become half.

**Dose:** Half glass once daily for fifteen days against tuberculosis; Half glass once daily for five days against fever; Half glass once daily for three days against roundworm.

**Other uses:** Root used to prepare local drink (DM).

**Uses:** DD

**Exsiccatum:** Duangba, 22.5.2005, Kar 244.

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**Vinca rosea** L., Syn. *Catharanthus roseus* G.Don., (Apocynaceae)

**LN:** Tholo (Ak).

**Descr:** Herb; leaves opposite, petiole short, elliptic to lanceolate, acute or sub acute apex; leaf glaucous; flower solitary axillary or terminal, pink; capsule elongated.

**Habitat:** Introduced for cultivation in the garden (Fig. 226).

**Regen:** By seed.
Fl: June to July; Fr: Aug. to Sept.

Distrib: (a) Madagascar, Sri Lanka, China, Myanmar; (b) Tamil Nadu, Kerala, Andhra Pradesh, West Bengal, Assam; (c) Bhalukpong, Seijusa 200m to 360m (Common).

Part(s) and local uses: DD

Other uses: Planted in the garden as ornamental (Ak).

Uses: DD

Market value: (c) Rs. 1408.00 per lit of oil.

Exsiccatum: Bhalukpong: 22.5.2005; Kar 244.

Viscum articulatum Burm.f, Syn. Viscum nepalense Spreng., (Santalaceae).


Descr: A parasitic leafless herb (Fig. 227 a Monpa herbalist showing Viscum articulatum plant); branches jointed, the internodes flattened, pale green, longitudinally furrowed; flower monoecious, minute, 1-6 together in fascicles at the nodes; fruit berry, subglobose, greenish yellow smooth.

Habitat: Parasite on the branches of big tree.

Regen: By seed.

Fl: June to Aug.; Fr: Sept. to Dec.

Distrib: (a) Hongkong, Myanmar, Sri Lanka, Malaysia, Archipelago, Java, Australia, Nepal; (b) Assam, Khasi Hills, Mizoram, Western Peninsula, Malaya Peninsula; (c) Kalaktang, Morsing, 1120m to 1250m (Very rare).

Part(s) and local uses: Stem against bone fracture.

Form of use: Stem paste.

Preparation: Stem paste is applied on the affected parts and then wrapped with cloth.

Dose: Left the wrapped bandage for twenty days.

Fig. 227
Other uses: DD

Uses: Ayurveda: Herb is bitter and is used as cooling, alexipharmic, aphrodisiac and also used against blood disease, ulcers, epilepsy and biliousness.


LN: Hing (DM/ Mi).

Descr: Shrub; leaves opposite, sometimes in the whorls of 3, ovate to lanceolate, acute, lower surface whitish green; flowers numerous, mouth oblique, deep red; capsule 1cm long.

Habitat: Along streams bank and roadsides (Fig. 228).

Regen: By seed.

Fl: Apr. to May, Fr: June to Aug.

Distrib: (a) Tropical Africa, Madagascar, Sri Lanka, China, Japan, Sumatra, Java; (b) Assam, Meghalaya, Manipur, Tripura, West Bengal; (c) Salari, Tenga Valley, Dirang, 1300m to 1500m (Common).

Part(s) and local uses: Flower against blood dysentery and to fill up blood deficiency (DM, Mi).

Form of use: Fresh flower is directly taken against blood dysentery and dry flower to generate blood.

Preparation: Flower is directly used against blood dysentery; dry flower is made into powder for generate blood corpuscle.

Dose: Ten flowers is taken once in daily for four days against blood dysentery; One table spoon powder is takes once in daily for one month after meal to generate blood corpuscles.

Other uses: DD
**Uses: Ayurveda:** Bark pungent, acrid, cooling, anthelmintic, dysentery, and leprosy, against blood disease; flower is useful in leucorrhea, toothache and menorrhagia.

**Siddha:** Bark is used for bowel complaints and hemorrhages and administered in menorrhagia and seminal weakness. The dried flowers are powdered and sprinkled over ulcers and wounds to diminish discharge and promote granulation.

**Exsiccatum:** Tenga Valley, 23.5.2005, Kar 267.


**LN:** Khaike (DM); Yerma (TM).

**Descr:** Shrub; stem and branches armed with broad based straight prickles, plant aromatic; shoots and rachis and midrib of leaflets usually tinged pink or with pink glandular spots when young; leaves imparipinnate, the rachis with a foliaceous green wing, rachis and midrib usually armed with straight prickles; leaflets 5-13, oblong, lanceolate, serrate, gland dotted; flower dull, purplish red, fruit globose.

**Habitat:** Scrubs, roadsides (Fig. 229a).

**Regen:** By seed.

**Fl:** May to July, **Fr:** Aug. to Oct.

**Distrib:** (a) Bhutan, Nepal, China; (b) Hot valleys of the sub tropical Himalaya from Kumaon to Sikkim upto 2300m; Khasi hills 1200-1800m; (c) Salari, Dirang, Mokto, 1300m to 2200m (Rare).

**Part(s) and local uses:** Fruit against gastritis, improve memory power.

**Form of use:** Powder.

**Preparation:** Mature fruit is dried in the sunlight and then made into powder.
Dose: One tablespoon is mixed with a cup of water; once in daily for ten days against gastritis. Dry fruit is directly taken with rice. Five fruits are taken once in daily for fifteen days to improve memory power.

Other uses: Fruit used in chutney (TM).

Uses: DD

Market value: (a) Rs.30.00 per kg of dry fruit at Dirang market; Rs. 20.00 at Tawang (Fig. 229b A Monpa lady selling dry fruit of *Zanthoxylum acanthopodium* at Bomdila market) and Rs. 25.00 per kg of dry fruit at Salari.

Exsiccatum: Dirang, 23.5.2005, Kar 269.


LN: Ngyang (DM); Yersheng (KM); Sanychok (Sher).

Descr: Shrub; prickles often vertically flattened on the trunk and branches; leaflets lanceolate; petiole narrowly winged with two stipular prickles at the base; fruit with oily gland.

Habitat: Forest, roadsides (Fig. 230).

Regen: By seed.

Fl: May to July; Fr: Aug. to Oct.

Distrib: (a) China, Bhutan, Nepal; (b) Punjab along the foothills of the Himalaya upto 1500m, Kumaon, Khasi hills, Assam; (c) Bomdila, Rupa, Kalaktang, Shergaon, Morsing, Dirang, Tawang, 1500m to 3200m (Common).
Part(s) and local uses: Dry fruit used as appetizer and against dysentery and gastritis.

Form of use: Dry fruit along with meal.

Preparation: Mature fruit is directly taken.

Dose: Four fruit is taken twice daily for five days as appetizer; five fruits is taken once in daily for three days against dysentery; two fruits daily once for ten days against gastritis.

Other uses: DD

Uses: Ayurveda: Fruits are used as digestive, appetizer, anthelmintic, pain, tumours, abdominal troubles, useful in eye and ear disease, disease of the lips, headache, leucoderma, asthma and troubles of the skin.

Unani: Fruit is used as astringent to the bowels, and useful in diarrhoea and as carminative and also good in brain disease, stomachic, strengthen the liver, purify the blood and remove foul smell from the mouth.

Market value: (a) Rs. 30.00 per kg of dry fruit at Bomdila market; Rs. 20.00 at Kalaktang and Rs. 25.00 per kg of dry fruit at Rupa.
(b) Rs. 1855.00 per lit of oil.
(c) Rs. 4620.00 per lit of oil.

Exsiccatum: Dirang, 23.5.2005, Kar 269.

Zingiber officinale Rosc. (Zingiberaceae).

LN: Thikrin (Ak).

Descr: Biennial herb; rhizome stout tuberous, scaly, yellowish brown; leaves narrow, distichus, subsessile, linear-lanceolate; flower greenish with a small dark purple.

Habitat: Cultivated in the hilly slope and kitchen garden (Fig. 231).
Regen: By rhizome.

FI: June to July.

Distrib: (a) Nepal, Bangladesh, China, Malaysia, Sri Lanka; (b) West Bengal, Assam, Mizoram, Meghalaya; (c) Seijusa, Bhalukpong, Tippi, Seppa, 160m to 380m (Common).

Part(s) and local uses: Rhizome against pneumonia (Ak).

Form of use: Fresh juice extract.

Preparation: Fresh rhizome is crushed and juice is extracted. Two-table spoon of pepper is mixed in half-cup juice.

Dose: Daily twice each time half cup for ten days.

Other uses: Used in chutney (N).

Uses: Ayurveda: Rhizome used as stomachic, aphrodisiac, carminative, dyspepsia, used against bronchitis, asthma, vomiting, leucoderma, anaemia, leprosy, ulcers, fevers, burning sensation; useful to improve taste; used against indigestion, piles and whooping cough.

Unani: Rhizome is used as stomachic, aphrodisiac, tonic, carminative, removes pain due to cold, worms from the brain, anthelmintic, piles, rheumatism and headache.

Siddha: Rhizome is used against cough, cold, flu and other respiratory problems.

Market value: (a) Rs. 40.00 per kg of rhizome at Bhalukpong, Rs. 60.00 per kg of rhizome at Seppa.

Fig. 231
(b) Rs. 16.00 to 18.00 per kg of fresh rhizome with fibre and Rs. 25.00 to 27.00 per kg of fibreless rhizome.
(c) Rs. 1419.00 per kg of rhizome powder.

Exsiccatum: Bhalukpong, 24.5.2005, Kar 278.