SUMMARY AND CONCLUSION:

Allelopathy is a new science and potential area of research for future, sustainable agriculture. It is environmentally safe, can conserve the available resources and also may mitigate the problems raised by synthetic chemicals.

There are some unuseful that are serious pests that can cause damage to most crops. Some of these trees inhibits seed germination and growth of other plants by means of producing toxic allelochemicals. However, there are some trees that acts in a stimulatory as well as in inhibitory ways. The allelochemicals are the secondary metabolites produced by plants and are the byproducts of primary metabolic process. The allelochemicals can be stimulatory, inhibitory or may have no effect on the growth of the other plants.

The present study "ALLELOPATHIC INTERACTION OF WILD ONION (Asphodelus tenuifolius Cav.) ON GERMINATION AND GROWTH OF SORGHUM (Sorghum bicolor L.) AND MAIZE (Zea mays L.)" in Dayalbagh was attempted to explore the effect of Asphodelus tenuifolius Cav. In the present investigation we observed that the shoot extract and seed extract of Asphodelus tenuifolius Cav. shows the inhibitory effect on germination of the test crops, 1- maize and 2- Sorghum.

Effect on Zea mays L.:-

The results revealed that different concentrations of Asphodelus tenuifolius Cav. shoot extract and seed extract both caused significant inhibitory effect on germination and growth behavior of Maize (Zea mays L.) seedlings. Maximum germination and growth occurred in control. Some times lower concentration ie. 25% shows significant growth in shoot length and root length.
Similarly the fresh weight and dry weight is also reduced by the inhibitory effect of *Asphodelus tenuifolius* Cav. shoot extract and root extract.

**Effect on Sorghum bicolor:**

It has been observed in present investigation that *Sorghum bicolor* L. also shows similar results. The different concentrations of *Asphodelus tenuifolius* Cav. shoot extract and seed extract both caused significant inhibitory effect on germination and growth behavior of *Sorghum bicolor* L. seedlings. Maximum germination and growth occurred in control. Sometimes lower concentration i.e. 25% shows significant growth in shoot length and root length.

Fresh weight and dry weight found more in control and 25% shoot extract of *Asphodelus tenuifolius* L. than other concentrations.

The results demonstrates the allelopathic potential of the weed *Asphodelus tenuifolius* Cav. and shows the inhibitory effect on the germination, shoot length, root length, fresh weight and dry weight of *Zea mays* L. and *Sorghum bicolor* L.

It has been concluded that selected weed for the experiment i.e., *Asphodelus tenuifolius* Cav. may affect the germination and growth behavior in inhibitory ways. The results highlight that plant parts have inhibitory effect on crops due to the effect of allelochemicals which are present in the dried and aqueous extract of the plant parts.
FUTURE PROSPECT

- Allelopathy as a science is rapidly growing and phenomenon dose exist as one of component of plant interference in nature.
- It is impotent to understand the role of allelopathy in successful weed extract management.
- Appropriate weed extract management will remain as one component of suitable environment.

SUGGESTION

Farmer’s participation should be encouraged for coming forward to find out the appropriate management of weed extract in favour of crop protection.