Agriculture being the largest single industry and the main occupation of the people of Himachal Pradesh, its importance in the economy of the State can hardly be overemphasised. Income from agriculture sector accounts for nearly 40 to 50 per cent of the total State Domestic Product. More than 93 per cent of the population directly or indirectly depends on Agriculture for their livelihood.

The only alternative to make these people self sufficient is to increase the purchasing capacity of the people by effecting such changes in cropping pattern as might bring them more income per unit area, than what they are getting at present. Himachal Pradesh possess varieties of fruits, particularly temperate fruits and cash-crops like Potato, ginger, vegetables and seeds because it had got varied altitude and agro-climatic conditions.

In Himachal Pradesh which is located in the North-Western Himalayas, the agro-climatic conditions vary from place to place i.e., sub-tropical, temperate and alpine dry regions. The holdings of the farmers are small, scattered, slopy and soil erosion is quite rampant. Rains and floods wash away the top valuable soil each year. There are other natural factors also which stand in the way of adoption of package of improved practices and introduction of intensive cultivation due mainly to states' hilly
terrain and peculiar agro-climatic conditions. Inadequacy of irrigation facilities is another stumbling block. Success of crops, by and large, depends on rains which are often erratic and not well spread. Nature, where it has imposed problems, it has also gifted to the Pradesh the potential agro-climatic conditions conducive for the production of cash-crops mainly seed-potatoes, ginger, chikory, kuth, off-season vegetables e.g. tomato, peas and cauliflower which have earned a coveted and enviable position to the state within the country.

In Himachal Pradesh in lower hills and valley areas between the height of 500-1000 meters, sub-tropical fruits like Mango, Litchi and Citrus could be cultivated. In the mid-hill elevations ranging from the height of 1200 to 1700 meters, stone fruits like Peaches, the apricots and plums could be grown and in higher hills ranging from 1700 to 3000 meters fruits like Apple, Cherry and Pear cultivated.

As a result of various agricultural production programmes during the Five Year Plans this Pradesh has achieved a high level of farm production. However, there is yet a vast scope for exploiting the potentials of growing off-season vegetables and other cash crops, adoption of mixed cropping and mixed farming techniques, raising crop intensity by taking additional short duration crops, inter-cropping of beans and pulses in maize crops and increasing the productivity of the soil and crop-production. In the un-irrigated areas, the crop yields can be increased per unit area by taking up dry land farming techniques.
like water harvesting and conservation of the moisture of the soil and adoption of dry farming agronomic practices. The economy of the small and marginal farmers and also scheduled castes/scheduled tribes farmers can be boosted by adopting mixed cropping and mixed farming techniques specially growing of vegetable and other cash crops and utilizing field batters and slopy lands for growing fodders and forages of perennial types.

There being no Agricultural College in the state, the administration got 8 seats reserved in the government Agricultural College, Ludhiana for its nominees. These nominees were paid Rs.50/- per month as scholarship during their four years graduate training. The trainees execute bond to serve the state for five years after training. For receiving Veterinary education also the amount of scholarship was Rs.50/- p.m. each. The Department also deputes two trainees - one fresh graduate and one department employee for post-graduate training at the Indian Agricultural Research Institute New Delhi. The Departmental employees were send on study leave while the fresh graduate were given a stipend of Rs.100/- per month. The department had sent 4 candidates for the training in Bachelor in Veterinary Science (B.V.Sc) and Animal-Husbandry course in the month of July 1968. These students were given Rs.100/- per month as stipend. Besides 53 candidates were sponsored for Stock Assistant Compounder's training for a duration of one year.

The right of Himachal Pradesh to have an agricultural University of its own was duly recognised by the Government of
India as far back as 1970, when the Punjab Agricultural University, declared as a corporate Institute under the Punjab Reorganisation Act, 1966 to serve the three newly reorganised States of Punjab, Haryana and Himachal Pradesh, was split into two separate State Agricultural Universities - one for Punjab and the other for Haryana.9

In each of the three newly reorganised States was located the constituent campus of the Punjab Agricultural University, viz. Ludhiana in Punjab, Hisar in Haryana and Palampur in Himachal Pradesh, the last being the youngest and the least developed of all. To compensate for the deficient development, the Indian Council of Agricultural Research Bifurcation Committee agreed to give a special grant of Rs. 50 lacs in the event of establishment of an agricultural University by the Government of Himachal Pradesh.10

The Government of Himachal Pradesh, at that time, however preferred to remain content with one multifaculty university with functionally and financially, autonomous Agricultural Complex to serve the State's interests in agricultural, horticultural and other allied subjects just like an agricultural university.

The Himachal Pradesh University Act of 1970, made the necessary provision for this role, under the advice of the Government of India, to ensure, that the State is not deprived of the financial assistance from the Central Government.
Council of Agricultural Research) by adopting the cardinal features of the Agricultural University in its agricultural complex i.e. integration of teaching, research and extension education. Realizing the importance of the agricultural education, colleges of Agriculture Solan and Palampur were established.

To begin with, the Agricultural Complex of the University consisted of the College of Agriculture Palampur and various research and extension education centres of the Punjab Agricultural University located in the merged area of undivided Punjab. In July 1971, the Agricultural College and Research Institute, Solan and some research farms of the State Department of Agriculture were also transferred to the Agricultural Complex of the University. The research unit of the State Forest Department was also transferred to the Complex the same year, with headquarters at Solan. Besides the two campus farms of Palampur and Solan, the Agriculture Complex had the various research farms scattered throughout the State which has been described lateron. The following map shows the Research Stations scattered throughout Himachal Pradesh.

Dr. H. R. Kalia, Dean, College of Agriculture, Palampur was asked to act as the Dean, Agricultural Complex under provision (ii) of Section 30 of the First Statutes in September 1970.
Himachal Pradesh University Agricultural Complex Map showing Research Stations, Educational Institutions and Districts.
<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Stations</th>
<th>Area (in acres)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Vegetable Research Centre, Kalpa</td>
<td>3.5</td>
</tr>
<tr>
<td>2.</td>
<td>Dry Fruit Research Centre, Sharboo.</td>
<td>38.0</td>
</tr>
<tr>
<td>3.</td>
<td>Temperate Fruit Research Centre, Mashobra</td>
<td>38.0</td>
</tr>
<tr>
<td>4.</td>
<td>Temperate Fruit Research Centre, Kotkhai</td>
<td>25.0</td>
</tr>
<tr>
<td>5.</td>
<td>Crop Research Centre, Bajaura</td>
<td>16.5</td>
</tr>
<tr>
<td>6.</td>
<td>Pulses Research Centre, Katrain</td>
<td>16.5</td>
</tr>
<tr>
<td>7.</td>
<td>Rice and Bee Keeping Research Centre, Nagrota</td>
<td>7.0</td>
</tr>
<tr>
<td>8.</td>
<td>Oilseeds Research Centre, Kangra</td>
<td>8.0</td>
</tr>
<tr>
<td>9.</td>
<td>Off-season Crop Research Centre, Keylong (Area on lease)</td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>Millets Research Centre, Leo</td>
<td>30.0</td>
</tr>
<tr>
<td>11.</td>
<td>Rice Research Centre, Sundernagar</td>
<td>10.0</td>
</tr>
<tr>
<td>12.</td>
<td>Rice Research Centre, Joginder Nagar</td>
<td>6.0</td>
</tr>
<tr>
<td>13.</td>
<td>Zira and Saffron Research Centre, Sangla</td>
<td>6.5</td>
</tr>
<tr>
<td>14.</td>
<td>Agrostology Centre, Chharabra</td>
<td>7.0</td>
</tr>
<tr>
<td>15.</td>
<td>Earth Worm Centre, Shillaru</td>
<td>5.0</td>
</tr>
<tr>
<td>16.</td>
<td>Regional Research Centre, Dhaulakuan</td>
<td>10.0</td>
</tr>
<tr>
<td>17.</td>
<td>Horticulture Research Centre, Bagthan</td>
<td>10.0</td>
</tr>
<tr>
<td>18.</td>
<td>Horticulture Research Centre, Khadrala</td>
<td>10.0</td>
</tr>
<tr>
<td>19.</td>
<td>Dry Fruit Research Centre, Geiyabong</td>
<td>10.0</td>
</tr>
<tr>
<td>20.</td>
<td>Cereal and Bee-Keeping Research Centre, Kulu</td>
<td>20.0</td>
</tr>
<tr>
<td>21.</td>
<td>Horticulture(Stone Fruits)Research Centre, Kandaghat</td>
<td>35.0</td>
</tr>
</tbody>
</table>

**Educational Institutions**

1. College of Agriculture, Solan.
2. College of Agriculture, Palampur.

**Districts**

12. Sirmur.

Agriculture College, Solan

The necessity for the establishment of Agricultural College in the hills arose from three basic considerations (i) Agro-Climatic Conditions of the plains differ from those found in the hills and therefore in the same way young men trained in a college located in the hills would not merely better understand the problems of hill-agriculture but would also prove to be more useful for its development. (ii) Till the end of the Second Five Year Plan, little basic and applied research had been done on problem of hills. Agricultural colleges which are located in hills could rightly serve as nerve centres for basic and applied research pertaining to hilly areas (iii) The hilly people being poor, could not afford to send their children to plains for receiving education.

Keeping these points in mind, the Government of Himachal Pradesh established the Himachal Agricultural College at Solan in July 1962, as an affiliated under graduate college of the Panjab University, at Chandigarh. In July 1965 the teaching and research activities of the Department of Agriculture, Himachal Pradesh were also integrated and the college was redesignated as Himachal Agricultural College and Research Institute and had jurisdiction over the old Himachal areas. Thus it remained as the Agriculture College and Research Institute. The Himachal Agricultural College and Research Institute Solan was transferred to Himachal
Pradesh University from July 5, 1971 to form one of the campuses of the Agricultural Complex. Till 1970-71 academic session, this college imparted besides under-graduate instructions, post-graduate training leading to M.Sc. (Agriculture) and Ph.D. degrees in Agronomy, Horticulture, Plant Pathology, Genetics and Plant-Breeding, Entomology and Soil-Science. The outstanding feature of the year 1972 was, the recruitment of the Professors and Heads of the Departments integrating teaching, research and extension education in the field of Horticulture, Plant-Pathology, Entomology and Forestry at Solan. In order to avoid duplicity instruction in the three subjects i.e. Agronomy, Genetics and Plant-breeding, Soil-Sciences and Chemistry was offered at Palampur and the other three subjects i.e., Horticulture, Plant-Pathology and Botany, Entomology and Ecology were taught at Solan. In each subject, 5 students were admitted to M.Sc. Agriculture and 3 to Ph.D. degree programme each year. Thus Solan was broadly to concentrate on Horticultural Crops. Dr. D.R. Thakur was the Associate Dean, College of Agriculture, Solan. Dr. H.S. Dhuria was the Professor and Head of the Horticulture Department and he joined on 1-9-1972. Dr. R.L. Munjal joined Solan Campus on 20-9-1972 as Professor of Botany and Plant-Pathology. The Head of the Forestry Department was Shri R.V. Singh who joined on deputation from State Government.

The College imparted training in 4 years B.Sc (Agriculture)
and 2 years M.Sc. (Agriculture) degrees of Himachal Pradesh University. For M.Sc. (Agriculture) the students were trained in the disciplines of Horticulture, Plant Pathology and Entomology. The enrolment of students in agricultural colleges in Solan and Palampur in the year 1970-71 was 411, in 1971-72 it was 395. In 1972-73 it was 410. In 1973-74 it was 426. In 1974-75 it was 402 in 1975-76 it was 411. In 1976-77 it was 586. In 1977-78 it was 640. In 1978-79 it was 722 and in 1979-80 it was 724.17

The enrolment figures or statement of students on roll, class-wise as on 31-12-1972 and for the year 1974-75, 1975-76 and 1976-77 in case of Solan and Palampur colleges is given in Table 8.1 and 8.2. The enrolment figures shows that in the year 1970-71, the total number of students in both the agricultural colleges were 411 and in the year 1979-80 the enrolment figures went up to 724. Thus it is clear that the students developed a keen interest in Agriculture.

Horticulture was introduced as a compulsory subject in 4th year of B.Sc. (Agriculture). Detailed courses were given to students in all the branches of horticulture viz., Pomology, Oleiculture, Floriculture and Fruit-Technology.

Forestry being a very important industry of the State, was given due weightage in the B.Sc. Agriculture class. The University attained the distinction of being the first University in India to start Ph.D. in Forestry. The Solan Campus started M.Sc. Horticulture in 1965 and Ph.D. programmes
Table 10.1

Sex-wise/College-wise enrolment figures of the students as on 31-12-1972 in case of Solan and Palampur Colleges

<table>
<thead>
<tr>
<th>Class</th>
<th>Solan College</th>
<th></th>
<th>Palampur College</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Boys</td>
<td>Girls</td>
<td>Total</td>
<td>Boys</td>
</tr>
<tr>
<td>B.Sc.(Agri.) Ist. Yr.</td>
<td>31</td>
<td>2</td>
<td>33</td>
<td>36</td>
</tr>
<tr>
<td>B.Sc.(Agri.) IInd Yr.</td>
<td>31</td>
<td>-</td>
<td>31</td>
<td>34</td>
</tr>
<tr>
<td>B.Sc. IIIrd Yr.</td>
<td>42</td>
<td>-</td>
<td>42</td>
<td>43</td>
</tr>
<tr>
<td>B.Sc. IVth Year.</td>
<td>32</td>
<td>-</td>
<td>32</td>
<td>43</td>
</tr>
<tr>
<td>Pre-University (Sci.)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>19</td>
</tr>
<tr>
<td>B.Sc.(Sci.) Part-I</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>22</td>
</tr>
</tbody>
</table>

### M.Sc.(Agri.) Part-I

<table>
<thead>
<tr>
<th></th>
<th>Solan College</th>
<th>Palampur College</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entomology</td>
<td>4</td>
<td>-</td>
</tr>
<tr>
<td>Horticulture</td>
<td>5</td>
<td>-</td>
</tr>
<tr>
<td>Plant-Pathology</td>
<td>5</td>
<td>-</td>
</tr>
<tr>
<td>Agronomy</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Plant-Breeding &amp; Genetics</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Soil-Science</td>
<td></td>
<td>4</td>
</tr>
</tbody>
</table>

### M.Sc.(Agri.) Part-II

<table>
<thead>
<tr>
<th></th>
<th>Solan College</th>
<th>Palampur College</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entomology</td>
<td>4</td>
<td>-</td>
</tr>
<tr>
<td>Horticulture</td>
<td>8</td>
<td>-</td>
</tr>
<tr>
<td>Plant-Pathology</td>
<td>7</td>
<td>-</td>
</tr>
<tr>
<td>Agronomy</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>Plant-Breeding &amp; Genetics</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Soil-Science</td>
<td></td>
<td>4</td>
</tr>
</tbody>
</table>

Total                      | 169           | 2                 | 171             | 218       | 6     | 224     |

<table>
<thead>
<tr>
<th>Class</th>
<th>1974-75</th>
<th>1975-76</th>
<th>1976-77</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Solan Falam-Total</td>
<td>Solan Falam-Total</td>
<td>Solan Falam-Total</td>
</tr>
<tr>
<td>B.Sc.(Agri.) 4 yrs. programme</td>
<td>109</td>
<td>132</td>
<td>241</td>
</tr>
<tr>
<td>Pre-University(Science)</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1st Year Programme</td>
<td>-</td>
<td>22</td>
<td>22</td>
</tr>
<tr>
<td>B.Sc.(Pure-Science)</td>
<td>-</td>
<td>47</td>
<td>47</td>
</tr>
<tr>
<td>M.Sc.(Agriculture)</td>
<td>36</td>
<td>26</td>
<td>62</td>
</tr>
<tr>
<td>Ph.D.(Agriculture)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agronomy</td>
<td>-</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Soils</td>
<td>-</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Plant-Breeding Genetics</td>
<td>-</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Entomology</td>
<td>4</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Botany &amp; Plant Pathology</td>
<td>6</td>
<td>8</td>
<td>15</td>
</tr>
<tr>
<td>Horticulture</td>
<td>5</td>
<td>7</td>
<td>11</td>
</tr>
<tr>
<td>Soil-Science &amp; Chemistry</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Animal Science...</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Vegetable Crops and Floriculture Forestry</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>160</td>
<td>242</td>
<td>402</td>
</tr>
</tbody>
</table>

was started in 1973. A number of Scholarships, Stipends and Fee-concessions were given to the students. Some students were given scholarships by the Education department of Himachal Pradesh. The various type of Scholarships that were given in Solan Agricultural College were:

(a) Government of India, National Loan Scholarships.
(b) Government of India National Scholarship.
(c) Government of India Scholarship to Scheduled Castes/Schedules Tribes.
(d) Merit-cum-Means Scholarship to Under-graduate students of Indian Council of Agricultural Research(I.C.A.R.).
(e) Indian Council of Agricultural Research(I.C.A.R.) Fellowship.
(f) State Stipends/other states.
(g) Stipend from Private bodies/sources.
(h) Himachal Pradesh State Stipends(Agriculture Department)
(i) Government of India Scholarship to Low-Income Group students.
(j) Half fee concession.

Poverty-cum-brilliance scholarship was also given to deserving students. Care was taken for providing education to needy students. During the year 1974-75, 160 students were on roll in Solan, 79 students out of 160 were given financial help of one of the other type. In the same year 140 students out of 242 received monetary help of one kind or of the other, in Palampur. In the same way during the year
1975-76, 21 out of 180 students in Solan, 101 received monetary help in the form of stipends etc. and in Palampur 123 students received help out of 231 students. During the year 1976-77, 22 again 40 per cent of students received financial help out of 264 students in Solan and 122 students out of 322 students received monetary help at Palampur. Indian Council of Agricultural Research (I.C.A.R.) fellowship for post-graduate studies was won by two students of Palampur college during the 1976-77. Thus we see that in each year most of the students were provided financial help like stipend and scholarships etc. in order to pursue their studies.

Side by side along with studies great care was taken to provide co-curricular activities to students. Games facilities were provided in the Solan Agriculture college premises. The Volley-ball and Badminton games were played at the college premises but for games like Football, Cricket and Hockey, the Municipal grounds were used. 23 In Himachal Pradesh University inter-college tournaments, the Agriculture college Solan teams took part in Football, Cricket, Hockey, Kabaddi, Table-tennis, Volley-ball and Badminton. N.C.C. was given due importance. Facilities were provided to the students in the college for enrolment in the N.C.C.

Great care was taken for maintaining good health of the students. Sick-room was provided in the college and necessary medicines were always kept in hand.
Hostel facilities were provided to the students of the Solan Agriculture College who came from far-off places. The college had hostel for both post-graduate students as well as for under-graduate students. Post-graduate hostel was at Chambaghat in Solan and could accommodate about 80 students. The under-graduate hostel could accommodate 35 students.

The students who topped in the class were encouraged by giving them prizes and various medals. The various medals which were given to students of Agriculture College, Solan, were:

1. The Government of Himachal Pradesh instituted in 1966 Lal Bahadur Shastri Memorial Gold Medal. This medal was awarded to the student who secured the first position in B.Sc.(Agriculture) Final Year.

2. Narendra Nath Mohan Memorial Gold Medal was instituted by M/s Mohan Meakin Breweries Ltd, Solan to a student who stood first in the M.Sc.(Agriculture) final year.

3. Then Major J. Sharma Guleri Gold Medal was instituted by Shri S.S. Guleria, I.A.S. to the student attaining maximum number of aggregate marks during 4 year B.Sc.(Agriculture Course) in Agricultural Economics.

In order to provide books to the students, the college had its library. The library of the college is at Chambaghat. The library operates on open shelf system. The library service
hours were extended beyond working hours. The library had 19,122 books and 303 journals were subscribed. A large amount of money was spent on the purchase of books. The libraries of the Krishi Vishva Vidyalaya has been dealt lateron.

With the transfer of this college to Himachal Pradesh University on July 5, 1971 the system of education was changed. Trimester system of education was adopted. This system was adopted from the year 1971-72. But the students who were admitted to various classes in earlier academic sessions continued to be provided facilities for completing the requirements of their degree programmes under traditional system. The teaching was covered in 14 weeks and evaluation system was purely internal and the grading system was done on the basis of a number of tests and assignments. The trimester system proved a boon in disguise. This system of education, aimed at attention being given to the students individually and not as a group. The students also remained hardworking throughout the time as his or her assessment was based not merely on terminal examinations only but also on periodical tests which were conducted from time to time.26

Keeping in view the agro-climatic conditions in the state, the departments of Pomology and Fruit Technology, Entomology and Agriculture, Mycology and Plant-Pathology, Vegetable crops and Floriculture, Forestry and Basic-sciences and Humanities were located at Satya Nand Stoke's(S.N.S.) Nagar, Solan.27
These departments were headed by Professors and were engaged in undergraduate and post-graduate teaching and research. The departments of Agronomy and Agrometeorology, Plant-Breeding, Soil-Science and water Management, Agricultural Economics and Animal-Science were headed by Associate Professors and were engaged in undergraduate instructions and research. Some also imparted post-graduate instruction.

The area of the campus at Solan was approximately 25 acres. The college had a Research Station at Khaltoo about 10 Kilometres from Solan, on Solan Rajgarh road. Himachal Pradesh Government acquired about 1100 acres of land near Khaltoo. The 12 village complex was acquired by the Himachal Pradesh Government near Khaltoo and renamed by the Executive Council of the University as Borlaug after the noble laureate and famous wheat breeder Norman E. Borlaug.

Agriculture College, Palampur

The college of Agriculture, Palampur came into existence in May, 1966 when the Punjab Agricultural University opened its third constituent college at Palampur to cater to the needs of agricultural education, research and extension education, in hilly areas of the erstwhile Punjab state. On the formation of Himachal Pradesh University on 22nd July, 1970, this campus became part of the agricultural complex of this University. Before this, the campus remained as part of the Punjab Agricultural University till 21.7.1970. The
The agricultural complex turned a new leaf in November 1978, with the enactment of Himachal Pradesh Krishi Vishva-Vidyalaya Act of 1978, when this college became the campus of the new Agricultural University. Thus the Agricultural complex was transformed into Agricultural University on 1 November 1978, with Dr. H.R. Kalia as its first Vice-Chancellor. The inauguration ceremony was presided by President of India.

Earlier three professors and one Associate Professor of Plant Breeding and Genetics had joined in 1972 and the position of the staff improved. But Dr. R.B. Singh, Senior Professor of Plant Breeding had left after a month and Dr. B.R. Tripathi who was the Professor of Soil and Agricultural Chemistry, was given the additional responsibility of Associate Dean after Dr. R.B. Singh’s quittal.

The college of Agriculture started a four year degree course in agriculture, restricting the annual admission to 50 students. 5 year degree programme in Agriculture was started in the year 1969, with 25 students in order to attract the high first class brilliant matriculates to the B.Sc. (Agriculture) Course. But the 5 year course was substituted by Pre-University (Science) Course during the year 1971-72. Falampur College offered teaching instructions leading to B.Sc. (pure-science) degree in 1972-73. Post-graduate M.Sc. (Agriculture) classes leading to M.Sc. degree was started in three subjects of Agronomy, Soil-science and Plant Breeding during the year 1971-72.
Care was taken to improve the qualifications of the in-service candidates. Some in-service persons were also admitted to the M.Sc. according to merit and the criteria of seniority. In the case of Ph.D. students, out of three seats in each department, two were earmarked for the in-service candidate of the University. This was done in order to raise the standard of teaching as well as for the promotion of teachers.

On the formation of Himachal Pradesh University, it was decided that the campus would provide education up to the graduate level in Home Science, and post-graduate studies in Agronomy, Animal Husbandry, Plant-Breeding, and Social Science. But it was started later because the existing area of 48 acres was considered to be insufficient. It was not thought wise, to carry on the construction programme according to the old master-plan. The Himachal Pradesh Government was requested to transfer a part of the Holta Tea Estate, measuring 842 acres. The Government transferred this land to the University in May, 1972. A meeting of the building Committee was held at Palampur on 8th March, 1972, in order to consider the building programme. Owing to the increased necessity for developing this campus into a full fledged agricultural complex for both post-graduate and under-graduate studies in a number of subjects, it was thought to use the land as judiciously and economically as possible so that the maximum area could be left for experi-
mental farm. It was therefore thought that instead of single or double storeyed buildings, multi-storeyed buildings were to be constructed. The construction of multi-storeyed buildings, however started after getting the expert advice, that the soil would withstand the weight of such heavy structures.34

A number of scholarships and fellowships and various other types of financial assistances were given to the students depending on their needs and their economic backwardness. The various types of scholarship and stipends included were:35

(a) Government of India, National Loan Scholarship.
(b) Government of India, National Scholarship.
(c) Government of India Scheduled Caste /Scheduled Tribes/ Low Income Groups and Himachal Pradesh State Stipends (Agricultural Department).
(d) Merit-cum-means scholarship to undergraduate students of Indian Council of Agricultural Research.
(e) ICAR Fellowship.
(f) State stipends/other states.
(g) Stipends from private bodies/sources.
(h) Half-fee concessions.
(i) College Merit Scholarships.
(j) College Stipends.
(k) Duni Chand Award of Full-Fee Concession.
Side by side along with studies emphasis was laid on co-curricular activities also, to run the sports programmes and cultural activities effectively, the Krishi-Vishva-Vidyalaya had set up a number of sports and cultural clubs, each headed by a teacher incharge. The college had a good playground. Games like Cricket, Basket-Ball, and Volley-ball were played by the students. The students of the college used to participate in University Cricket, Basket-ball and Volley-ball matches. The directorate of students welfare, in addition to organising co-curricular and sports activities, keeps the students informed of the job and employment opportunities and helps them in their placement after getting the degrees.

N.C.C. was a regular feature of the college. The N.C.C. Cadets participated in various celebrations held at the campus. The students participated in various declamation contests. Trophies were instituted from the year 1971-72, in order to permit inter-college competition. The name of the trophy was 'Dean's trophy' started in the year 1971-72. 

Trophy of 'Assistant Director Student's Welfare' was given to the best sportsman of the college.

Great care was taken for Hostel and Health services. The college had a good hostel facilities. In the year 1971, a hostel wing which provided accommodation for 48 students was completed. Arrangements were made for the recreational facilities in the hostel like installation of a radio, reading-room and indoor games room. Care was taken for maintaining
the proper health of the students. The college had its own dispensary which functioned at two places one at the campus and the other in the town. The Doctor and the staff of the dispensary looked after the needs of students, staff and families of the staff in a very good way.

The students who want to study and consult various books, a rich library was provided to them. The library had a collection of bound volume of periodicals. It received 274 journals, out of which 122 were Indian and 152 were foreign. It operates on open-shelf system. The service hours of the library were extended from 10 A.M to 6 P.M on working days from 1st November, 1971 to include all sundays and was kept open upto 8:30 P.M. at night on working days. Various books, periodicals and microfilms were added in the library each year. In order to keep the students informed about the latest arrivals of periodicals and serials, weekly lists in the form of 'Periodicals received this week' were issued. A revised list of the holdings of the back volume was issued under the title 'Catalogue of serials in the Himachal Pradesh University Library, Palampur.' Binding facilities were provided at the campus. The bindery machinery and materials were of good quality.

Museum

The college also had an Agricultural Museum. The museum aimed at actively involving itself in teaching, research and extension education programmes. The Board
of the International Council of Museum (ICOM) Paris, had recognised it as a Pilot-Project to study its effects on economic and social development of developing countries.  

Suitable material both for students and farmers were collected and made available to them. There was a good collection of geological, botanical, agricultural and Forestry materials. They were used for the purposes of class-room study and for exhibition to farmers.

**College Farm, Dairy and Poultry**

The main campus had 50 acre area which was not sufficient for field experiments of several research projects and the instructional needs. Realizing this need, the Himachal Pradesh Government had transferred 866 acres of land. The dairy herd consisted of a number of animals including jersey, sindhi, sahiwal and cross bred. The dairy average milk yield of the herd over the period of one year had ranged from 6 to 8 litres.

A poultry unit was started in April, 1972.

In the year 1978, Himachal Pradesh Krishi Vishva Vidyalaya was formed at Palmpur. Thus the Palampur and Solan campus became part of the Krishi Vishva Vidyalaya. The institution not only cater to the education needs of Himachal Pradesh but also of students coming from Delhi, Andhra Pradesh, Jammu and Kashmir, Assam, Meghalaya and Nagaland. Besides there are students from other countries like Nepal, Iran, Siberia and Afghanistan. Thus the university was given a cosmopolitan outlook. For admission, the students coming from
rural areas got preference.

To supervise post-graduate studies the University had a Dean of post-graduate studies. The under-graduate studies were under the stewardship of the Deans of the college.

The under-graduate teaching curriculum consists of courses in humanities and basic sciences (30 to 40%), core courses in agriculture (40 to 50%) and elective courses (10 to 20%). The main objective of the curriculum at under-graduate level was to prepare a student as a general agriculturist with a little more grinding in one of the disciplines of agriculture, which he could pick up for his higher studies or for professional career. An important feature of education at under-graduate levels is the introduction of farm practicals in the curriculum. An under-graduate student was to work at the college farm to acquaint himself with various operations of farming and to make him a practical farmer.

The level of curriculum at post-graduate level aims at a greater deal of specialization. A student had to choose a major, the field of his specialization and then a minor and supporting course associated with his field of specialization. The integration of teaching as well as research in educational programme is effected at post-graduate level where in a student had to work on a research problem to be presented in the form of dissertation in addition to course work.

The problem of research generally relates to the agriculture of the region and is carried out under the direct
supervision of an experienced teacher and assisted by a number of advisory members.

A post-graduate level, seminars and group-discussions constitute an important part of the curriculum. The whole curriculum of post-graduate education is oriented towards making a student a specialist in a particular field having adequate scientific background and mental preparedness to analyse and solve the problems of agriculture related to his field of specialization.

The Board of management is the highest administrative body of the complex. The Vice Chancellor is the Chairman of the Board. The other members include: Dean, Agricultural Complex; member secretary, Agricultural Production Commissioner, two progressive farmers, Directors of Agriculture, Horticulture, Animal-Husbandry and Chief Conservator of Forests, one Associate Dean and one Professor.

**Library:** The system of library of the Himachal Pradesh Krishi-Vishva Vidyalaya includes four libraries scattered in different parts of the State. They are University Library at Palampur (Kangra), Campus Library at Satya Nand Stokes (SNS) Nagar (Solan), Regional Fruit Research Station Library Mashobra (Shimla) and Regional Research Station Library, Dhaulakuan, (Sirmur).

With the introduction of the National Agricultural Research Project (NAR), a few publications for sub-stations,
such as Sundernagar, Berthin, Kangra and Malan were also acquired. The buildings of the libraries situated at Regional Research station, Dhaulakuan and Regional Fruit Research Station, Mashobra were quite good.

The library system also established exchange relations with various libraries of repute. The libraries send various bibliographies and catalogues issued from the University Library, besides the Himachal Journal of Agricultural Research and the Annual Report of the Himachal Pradesh Kri shi Vishva Vidyalaya to the institutions with which the exchange relations were established.

Publications were being received on gratis from many institutions, particularly IDRC, Canada, IRRI, Manila, National Academy of Science, USA, USDA, Washington, International Atomic Energy Agency Vienna, Centre for Overseas Pest Research, London, Institute for Land Reclamation and Improvement, Netherlands, ICRISAT, Hyderabad, UGC, ICAR, Union-Ministry of Education, Planning Commission, Registrar General and Census Commissioner of India, Union Ministry of Education Planning Commission, Registrar General and Census Commissioner of India, Union Ministry of Home Affairs and several departments of the Himachal Pradesh Government.

Periodical Section

Indian and foreign journals, including serial publications published by various publishers of repute were received in the library.
**Book Bank:** The Book Bank was located at the University Library, Palampur and Campus Library, SNS Nagar (Solan). The main objective of the Book Bank is to help the poor and needy students to draw books for consultation for a period of one full semester. The students can get four books from the Book-Bank, besides their entitlement to draw books from the main libraries. The nominal rent with a minimum of Rs.2.0 and maximum of Rs.5.00 per book for full semester is charged from the students.

The income from book-bank was used only for the purchase of new titles or for replacing the old editions.

**Technical Section**

The classification of the publications in the libraries was done according to the Dewey Decimal Classification scheme (18th edition). Anglo-American cataloguing Rules 1967, were followed for the cataloging of the publications.

The classification and the cataloging of the publications at the University library, Palampur was uptodate. At the campus library, SNS Nagar, (Solan) Journals of biological sciences, general agriculture, horticulture and forestry were classified. The technical work at Regional Fruit Research Station (RFRS), Mashobra was satisfactory. But the Regional Research station library at Lhaulakuan still lags behind.
**Documentation and Reprographic Services**

The main libraries at Falampur and SNS Nagar (Solan) have the photocopies machine. The campus library, SNS Nagar, (Solan) also possessed Electric stencil cutting machine.

**Library Co-operation**

The following means help in making the library services effective for the university:

(i) **Inter-Campus Co-operation:** The books required by various teachers and students of one campus/Research station, which are not available are arranged from the other libraries from within the university.

(ii) **Inter-Library Loan:** The publication not available within the library system are arranged from other libraries for the benefit of the readers and in many cases photocopies of the required pages are arranged.

(iii) **Co-operation with National Centre:**

The University library co-operates with the Indian National Scientific Documentation Centre (INSDOC) and Indian Council of Social Sciences Research (ICSSR).

**Bindery:** The publications are bound in the library bindery and not from any commercial bindery. The gold printing facilities also exist in the bindery sections located in the university library and the campus library. The university
library has helped the research station libraries also for the binding of their publications.

**Book-shop:** The university library, Palampur acquires journals and serials through the university book-shop. Under this scheme, ₹9,28,575 were saved for subscription in the periodical section. This scheme has, however, not been extended to the other libraries so far.

**Teaching:** Literature and Technical writing, for post-graduate students were compulsory one. Credit hour course was being conducted by the main libraries of the university. At Palampur, the teaching work was conducted by the University librarian and at SNS Nagar (Solan), the Assistant Librarian looked after this assignment. The course helped the students to learn the use of the available scientific literature for technical writing and proved useful for their writings.

**Membership, Circulation and Visitors**

The figures for membership circulation and visitors of the libraries are as under:

(i) The membership of the Palampur, SNS Nagar (Solan), Mashobra and Dhaulakuan libraries stood at 628,359,21 and 24 respectively.

(ii) The libraries attracted a large number of visitors. Issue of books also showed an increasing trend.
The book stocks of the libraries of the Agricultural Campuses at Solan and Palampur were fairly good. They subscribed to 304 and 283 current periodicals respectively besides procuring book volumes of important periodicals.

**Financial Review**

Himachal Pradesh University Agricultural Complex received major portion of its funds from the State Government in the form of grants-in-aid from the Department of Agriculture (including Horticulture), Animal Husbandry and Forestry. The Receipts and Payments for the year 1971-72 are shown as follows:

**Income and Expenditure Accounts on Agricultural Education in Himachal Pradesh for the year 1971-72**

<table>
<thead>
<tr>
<th>Campus</th>
<th>Receipts</th>
<th>Payments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Palampur</td>
<td>44,87,530-65</td>
<td>44,87,530-65</td>
</tr>
<tr>
<td>Solan</td>
<td>25,14,465-00</td>
<td>25,14,465-00</td>
</tr>
</tbody>
</table>
During the year 1973-74 a total of ₹1,54,70,340/- was received from the following Agencies:

(i) State Government 6540369-00 3917253-00 = 10457622-00

(ii) University Grant Commission = 3478579-42

(iii) Government of India = 281931-30

(iv) Other agencies = 1252207-32

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Grand Total = 15470340-04

Expenditure on various items during 1973-74 was as under:

Expenditure Agriculture Complex for the year 1973-74 (Plan and Non-Plan)

(i) State Agricultural Schemes = 6043869-00

(ii) Forest Schemes = 352968-00

(iii) Tea Loaned = 22757-00

(iv) Indian Council of Agricultural Research (I.C.A.R.) Schemes = 1933319-00

(v) State Animal Husbandry Scheme = 36245-00

(vi) Forest Research Institute Dehradun = 38875-00

(vii) Advances (Land Purchase Accounts of tea estate) = 600000-00

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= 9228033-00
The Agriculture Complex of the University received grants-in-aid from different agencies as under during the year 1974-75:

<table>
<thead>
<tr>
<th>Sr.No.</th>
<th>Department</th>
<th>Non-Plan</th>
<th>Plan</th>
<th>Total (in lakhs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Agriculture (inclu-</td>
<td>72.26</td>
<td>74.50</td>
<td>146.76</td>
</tr>
<tr>
<td></td>
<td>ding Horticulture)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Animal Husbandry</td>
<td>1.54</td>
<td>4.05</td>
<td>5.59</td>
</tr>
<tr>
<td>3.</td>
<td>Forestry</td>
<td>9.40</td>
<td>4.40</td>
<td>13.80</td>
</tr>
<tr>
<td>4.</td>
<td>Education</td>
<td></td>
<td>3.14</td>
<td>3.14</td>
</tr>
<tr>
<td>5.</td>
<td>Border Area Scheme</td>
<td></td>
<td>4.03</td>
<td>4.03</td>
</tr>
</tbody>
</table>

In addition, several Indian Council of Agricultural Research (ICAR) and co-ordinated research projects continued to be in operation in Agriculture Complex, Himachal Pradesh University, with a budgetary provision of ICAR shares of ₹19.72 lakh for the year 1974-75. Besides one research scheme was financed by the Tea Board of India on 50:50 basis with Annual budget of ₹0.60 lakh for the year 1974-75.

In addition, the Indian Council of Agriculture Research released development grant of ₹13,10,485/- for the Agriculture Complex. The Agriculture Complex, Himachal Pradesh University received major portion of the funds from the state government in the forms of grants-in-aid from the Department of Agriculture.
Animal Husbandry and Forestry. The Allocation of Grants-in-aid by the various State Government Departments during the year 1975-76 was as below:

<table>
<thead>
<tr>
<th>Sr No.</th>
<th>Department</th>
<th>Grant-in-aid (in lacs)</th>
<th>Total (Rs. in lacs)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Non-Plan</td>
<td>Plan</td>
</tr>
<tr>
<td>1.</td>
<td>Agriculture (including Horticulture)</td>
<td>49.75</td>
<td>44.00</td>
</tr>
<tr>
<td>2.</td>
<td>Animal Husbandry</td>
<td>0.50</td>
<td>4.00</td>
</tr>
<tr>
<td>3.</td>
<td>Forestry</td>
<td>4.00</td>
<td>5.00</td>
</tr>
</tbody>
</table>

In addition, several ICAR and Co-ordinated projects continued to be in operation in Agriculture Complex, Himachal Pradesh University, with a budgetary provision of ICAR share of Rs. 24.39 lakhs in the year 1975-76. The total budgetary provision from the various resources for the year 1975-76 stood at Rs. 231.13 lacs.

The budgetary position of Agriculture Complex, Himachal Pradesh University against state Government grant for the year 1975-76 was as under:

1. Agriculture -- 141.22 lacs
2. Forestry -- 14.15 lacs
3. Animal Husbandry -- 11.91 lacs
4. Education -- 6.00 lacs
5. Border Areas Development -- 4.43 lacs
In addition, the Indian Council of Agriculture Research (ICAR) released development grant of Rs. 28.63 lacs, for the Agriculture Complex during the year 1975-76.

The budget provision of the Agriculture Complex, Himachal Pradesh University, against State Government grants for the year 1976-77 was as under:

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Department</th>
<th>Budget estimates</th>
<th>Grant-in-aid received</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Agriculture</td>
<td>194.58</td>
<td>94.80</td>
</tr>
<tr>
<td>2.</td>
<td>Forest</td>
<td>18.62</td>
<td>7.00</td>
</tr>
<tr>
<td>3.</td>
<td>Animal Husbandry</td>
<td>14.54</td>
<td>6.16</td>
</tr>
<tr>
<td>4.</td>
<td>Education</td>
<td>6.50</td>
<td>-</td>
</tr>
<tr>
<td>5.</td>
<td>border Area Development</td>
<td>3.91</td>
<td>-</td>
</tr>
<tr>
<td>6.</td>
<td>Advances</td>
<td>1.97</td>
<td>-</td>
</tr>
</tbody>
</table>

In addition to the above, the Indian Council of Agricultural Research (ICAR) released Central Assistance amounting to Rs. 62.49 lakhs for the Agriculture Complex.

The expenditure during the year 1979-80 during plan and non-plan was as follows:

<table>
<thead>
<tr>
<th>Year</th>
<th>Plan</th>
<th>Non-Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td>1979-80</td>
<td>21,62,759-00</td>
<td>49,69,354-00</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Non Plan</th>
<th>12500000/−</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>Plan</td>
<td>3350000/−</td>
</tr>
<tr>
<td>C</td>
<td>Special Earmarked Grants</td>
<td>341299/−</td>
</tr>
<tr>
<td>D</td>
<td>Central Government Scheme</td>
<td>622900/−</td>
</tr>
<tr>
<td>E</td>
<td>University Grants Commission</td>
<td>255952/−</td>
</tr>
<tr>
<td>F</td>
<td>Grants From other Agencies</td>
<td>249796/−</td>
</tr>
</tbody>
</table>

**Expenditure**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Plan</td>
<td>15598150/−</td>
</tr>
<tr>
<td>Plan</td>
<td>4070959/−</td>
</tr>
<tr>
<td>Special Earmarked Grant</td>
<td>1264112/−</td>
</tr>
<tr>
<td>Other Agencies</td>
<td>197941/−</td>
</tr>
</tbody>
</table>
Research: On the Agricultural Complex of Himachal Pradesh University also rests the responsibility of research relating to agriculture, animal husbandry and Forestry in Himachal Pradesh. The functional jurisdiction of a department extends beyond the main campus for the purposes of research and communication of results of research to the farming community all over the State. To play these roles effectively, the state Government had transferred several research schemes and stations to the University.52

The University had undertaken problem-oriented research projects and adhoc research schemes for development of horticulture, animal husbandry and forestry under three dimensional forest farming programme.53 Four demonstration units for development of catchment areas was set up at Baijnath, Bilaspur, Nahan and Kulu, where flora, grasses and trees of these areas were identified. As a result of research work done at various campuses and research stations, the University developed improved varieties of crops, vegetables and fruits, Standardised production of seed of cauliflower, other temperate vegetables, chicory and sugar production of hops.54

Indo-New Zealand Livestock Improvement Project

The Indo-New Zealand Livestock Improvement Project was established at Palampur Campus with a view to improve the gross income and nutrition of the people of Himachal Pradesh through increase in milk production. It was sponsored by the State Animal Husbandry Department and the University College
of Agriculture with the financial assistance given by the Government of New Zealand for purchase of equipment vehicles and also exchange of technical staff.55

The Agricultural Complex of University had adopted two block viz. Dharampur in Solan District and Fanchrukhi in Kangra District, where farmers were motivated for taking up scientific farming. The University undertook intensive advisory programme under which farm scientists visit the farms and fields in different agro-climatic regions of the state with a view to identify the practical problems of the farmers and finding solutions thereof.56

The research in different departments had made a good progress.

1. Department of Plant Breeding and Genetics:

The work on different crops was not only done at Falampur and Solan campus but also at other crop breeding research stations in the State.

2. Department of Soils and Agricultural Chemistry:

The research work was conducted through All India Co-ordinated Research Project of Indian Council of Agriculture Research (ICAR).

3. Department of Agronomy:

Experimental Research was carried on Maize, Wheat and Barley.
4. Department of Horticulture:

The Department of Horticulture had a good network of Fruit Research Stations located in different agro-climatic zones of the state. The research work of this department was spread over mainly at 9 research stations located in different agro-climatic zones of the State in addition to college of agriculture, Solan. The Tea research work was conducted under a scheme partly financed by Tea Board which was at Palampur, was transferred from the Department of Horticulture. The main work carried out at Research Stations were as given below:

1. Temperate Zone:

(a) Regional Fruit Research Station, Mashobra: This was initially started as a small Fruit Research Station in 1956 and had very good field and laboratory facilities for problem oriented and basic research on temperate fruits particularly apple with a collection of 700 varieties. It had the largest collection of apples and other varieties of temperate fruit.

(b) National Hortorium Kotkhai: This station was established in 1961 with the objective of collecting the germplasm of different temperate fruits and to evaluate them.

(c) Fruit Research Station, Khadrala: Apple plantations are increasing every year and some of the apple producing areas are located at higher elevations of
about 3000 metres. High altitude horticulture has its own problems like limb-breakage due to heavy snowfall, delayed ripening, excessive colouration and winter injury.

This station is located at an elevation of 3000 metres and is engaged in solving such problems faced in apple and cherry cultivation under high altitude conditions.59

2. Mid-hill Zone

(a) Fruit Research Station, Kandaghat

This station was established for carrying out research on the different aspects of stone fruits cultivation. Many varieties of apricot, apple, plum, peach, persimmon, almond and walnut were maintained and studied.

(b) Fruit Research Station, Borlaug

This was in the process of establishment and was being set up for intensifying the work on stone fruits.

(c) Fruit Research Station, Easthan

This station was established in the year 1965 and is situated at an elevation of about 1200 metres and is meant for research work on apples and pears under low altitudes conditions. Work was in progress at this
station to select those varieties of apples and other fruits which can do well under low altitude conditions and also to standardise agro-techniques under these conditions.

(d) *Tea Research Station, Palampur*

Work in this station was done on all the important aspects of tea cultivation.

(e) *Vegetable Research Station, Solan*

At this station most of work on the off-season vegetable on mid-hill elevation such as tomato, beans, peas, capsicum and cucumbers etc. was carried out with a view to evolve new quality vegetables which are high yielding and resistant to diseases, so that the return per unit is more assured.

3. **Low Hill and Valley Zone**

(a) *Fruit Research Station, Dhaulakuan*

This station possesses one of the biggest collection of the citrus fruits in the country.

(b) *Fruit Research Station, Kothipura (Bilaspur)*

At Kothipura work was done to work out the possibilities of olive and Pomegranate cultivation in Himachal. The varieties of these fruits were introduced from
abroad. The research station had a collection of exotic varieties of olive.

4. Dry Zone

(a) Fruit Research Station, Sharboor

This station was established in 1957. Kinnaur region suited for the production of good quality grapes because of the cool and dry climate of the area. Research carried out at this station has revealed that high quality raisins can be made from Thompson Seedless grapes.

(b) Dry Fruit Research Station, Gyalong

This was started in 1965 and is located in the dry zone of Kinnaur and carried out work in various dry fruits like Walnut and drying varieties of apricot.

(c) Vegetable Research Station, Khattoo

This station is engaged in the research work on standardization of seed production techniques of temperate vegetables mainly cabbage, turnip, carrots and sugarbeet. As a result of research work done at this station the cultivators successfully took up the production of vegetable and sugarbeet seeds.

Besides these the other Stone Fruit Research Station, Khattoo came into existence in the year 1970. Research was
conducted on various aspects of stone-fruit cultivation. Different varieties of grapes, almonds, plums, apples, peaches, pears, apricot and pomegranate were planted.

At Kandaghat Research Station many varieties of apricot, apple, plum, peach, persimmon, almond and walnut were studied as well as maintained. 62

It would be clear from the above account that research work was under-way to solve many problems facing the orchardists of the Prades, so as to put the horticultural industry on a sound and firm footing.

5. Department of Botany and Plant Pathology

The research work in this department was conducted at Solan and Palampur. Under a project on exploration and publication of flora of Palampur, 2000 specimens belonging to 360 species from 190 genera and 19 families were collected, identified and preserved. 63

Mushroom Research was done on a large scale. There are many types of Mushrooms which grow in Himachal Pradesh especially during rainy season besides Guchchhi. 64 Work on mushrooms was also conducted under Indian Council of Agricultural Research (I.C.A.R.) Project. A study of the cultivation of edible mushrooms was started in 1961 at Solan. 65
In the first few years progress was slow because horse-dung
on which this mushroom was grown in various parts of the world, was not easily available at Solan and cow-dung gave low yield which was used as a substitute.

In 1967 with the assistance of F.A.C., Mushroom expert Dr. E.F.K. Mantel, this centre developed synthetic compost which gave a satisfactory yield. The mushroom laboratory at Solan worked on development of strains which grow under high temperature conditions. The Mushroom laboratory at Solan supplies spawn to various parts of the Country.

6. Department of Entomology: The entomology research work was being conducted at Solan, Palampur, Kulu and Nagrota.

7. Department of Forestry: Himachal Pradesh Government decided to transfer Forest Research and Forest extension education to Himachal Pradesh University. Therefore Forestry department in Agricultural Complex of Himachal Pradesh University came into being from 19th November, 1971.

Research work was spread in different types of forests all over the State in nurseries located at Solan, Manali, Kulu, Malan, Baniket, Bilaspur, Sabra and Shong Tong. Experiments conducted concern mainly with the nursery and plantation techniques of important species growing in Himachal Pradesh, rosin tapping techniques.

Extension Education: The extension education unit headed by the Deputy Director of Extension Education was set
up at Palampur Campus by the Punjab Agricultural University to carry out extension education activities in the hilly region of erstwhile Punjab on the same pattern as followed at the other two campuses of the then Punjab Agricultural University. This unit operated the following schemes/programmes in old Punjab areas:

(i) Farmers' training under the aegis of Agro-Vocational school, Palampur.

(ii) Farm Advisory Service Scheme in collaboration with State department of Agriculture at district headquarters of Kulu, Shimla and Kangra.


The Hindi Journal 'Unnat Kheti' was being published by the Extension Education Unit. This journal published good information for farmers. The journal was famous not only in Himachal Pradesh but was studied even by people outside the state. The articles were written by experts in the university.

Thus we can say that Agricultural education had made a headway in Himachal Pradesh.
References


5. Ibid.

6. Information collected from the office of the Department of Agriculture, Shimla, Himachal Pradesh.

7. Ibid.


9. Ibid.


10. Ibid.


12. Dr. K.C. Pant assumed the charge of Regular Dean on 1st February 1972. The First Board of Management was also constituted in February 1972, but Dr. Pant resigned on 31st July 1972 and was reverted to his parent post of Professor of Entomology at the Indian Agricultural Research Institute, New Delhi. Again Dr. H.R. Kalia was asked to act as Dean of the Agricultural Complex with the permission of the University under Section 30 of the first Statutes of the University Act.

Ibid.

Ibid.

Ibid.

Information collected from the office of the Directorate of Education, Education Department, Himachal Pradesh.

Dr. Y.S. Parmar University of Horticulture and Forestry was established on 1st December 1985 by Himachal Pradesh Government, Solan, Himachal Pradesh.

Annual Report 1972-73, Himachal Pradesh University, Shimla, p.11.

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