Shobhit
Institute of Engineering & Technology
Deemed to-be-University
EDUCATION EMPOWERS

Report on:Crop Cafeteria

We have two research farms for Agriculture/Horticulture work, which is named as (HRC) Horticulture Research Center located behind the university hostel & the other one is (CRC) Crop Research Center which is 300 meters far from the university campus. On CRC &HRC field, we conducted some trial, plot wise with the group of students.We divided the students in several groups, and we provide agricultural and instruments required material him to maintain thefield. From sowing to harvesting, we gave him some technical work on different European vegetable and flowers. Weconducted fieldbaselearning projects on various aspects of agriculture sciences.The details of these projects are given below.

On HRC Technical:

- Different bed planting methods (Raised&Narrow). One of the biggest reasons to consider raised bed agriculture is water management. In areas that receive excessive moisture at key points in the season raised beds may be a good fit. Since they are above the surface of the land, they can shed water more easily, and if done properly, the growing media where the plant's roots are can avoid water logging, which can destroy a crop. On the other hand, during dry periods, a raised bed will dry out quicker, and that can be bad for the crop as well. In many raised bed systems, provisions to irrigate are needed if extended periods of dry weather are common. They make for a good fit for trickle or drip irrigation, and in some locations, flood irrigation is used between the rows, allowing for water to diffuse through the soil to the roots of the crop being grown.

- Weed management activity (Manual, Cultural & Mechanical) This period has been defined as an interval in the life cycle of the crop when a must be kept weed – free to prevent yield loss. If weeds have been controlled throughout the critical period, the weeds that emerge later will not affect

SHOBHIT INSTITUTE OF ENGINEERING & TECHNOLOGY Deemed to be University

Registrar
Shobhit Institute of Engg. & Tech.
(Deemed to-Be University)
NH-58, Modipuram, Meerut-250110

yield and can be controlled prior to harvest with a harvest and to burn down the weeds and desiccate the crop. Horticulture crops are very sensitive to weed competition, and need to kept weed-free, from planting, emergence or budbreak, until the end of their critical weed –free period. If the crop is kept weed-free for the critical period, generally no yield reduction would result. Again, weeds emerging after the critical weed-free period will not affect yield, but control efforts after this time may make harvest more efficient, or reduce weed problems in subsequent years in perennial crops.

- Direct seed sowing, seedling, and plantation of vegetable and flowers.
- Seed growing of some European based vegetable (red cabbage, white brinjal, broccoli,lettuce).
- We are developing organic farming with the using of (compost & FYM).

Advantages of organic manure:

1.Organic manure provides all the nutrients that are required by plants but in limited quantities.

2. It helps in maintaining C:N ratio in the soil and also increases the fertility and productivity of the soil.

3. It improves the physical, chemical and biological properties of the soil.

4. It improves both the structure and texture of the soils.

5. It increases the water holding capacity of the soil.

6. Due to increase in the biological activity, the nutrients that are in the lower depths are made available to the plants.

7. It acts as much, thereby minimizing the evaporation losses of moisture from the soil.

List of vegetable and flowers which are growing in HRC:

General Vegetables:

I. Cabbage, Broccoli, Lettuce, Brinjal, Spinach, KasuriMethi, green mustard, Beans, capsicum.

SHOBHIT INSTITUTE OF ENGINEERING & TECHNOLOGY Deemed to be University

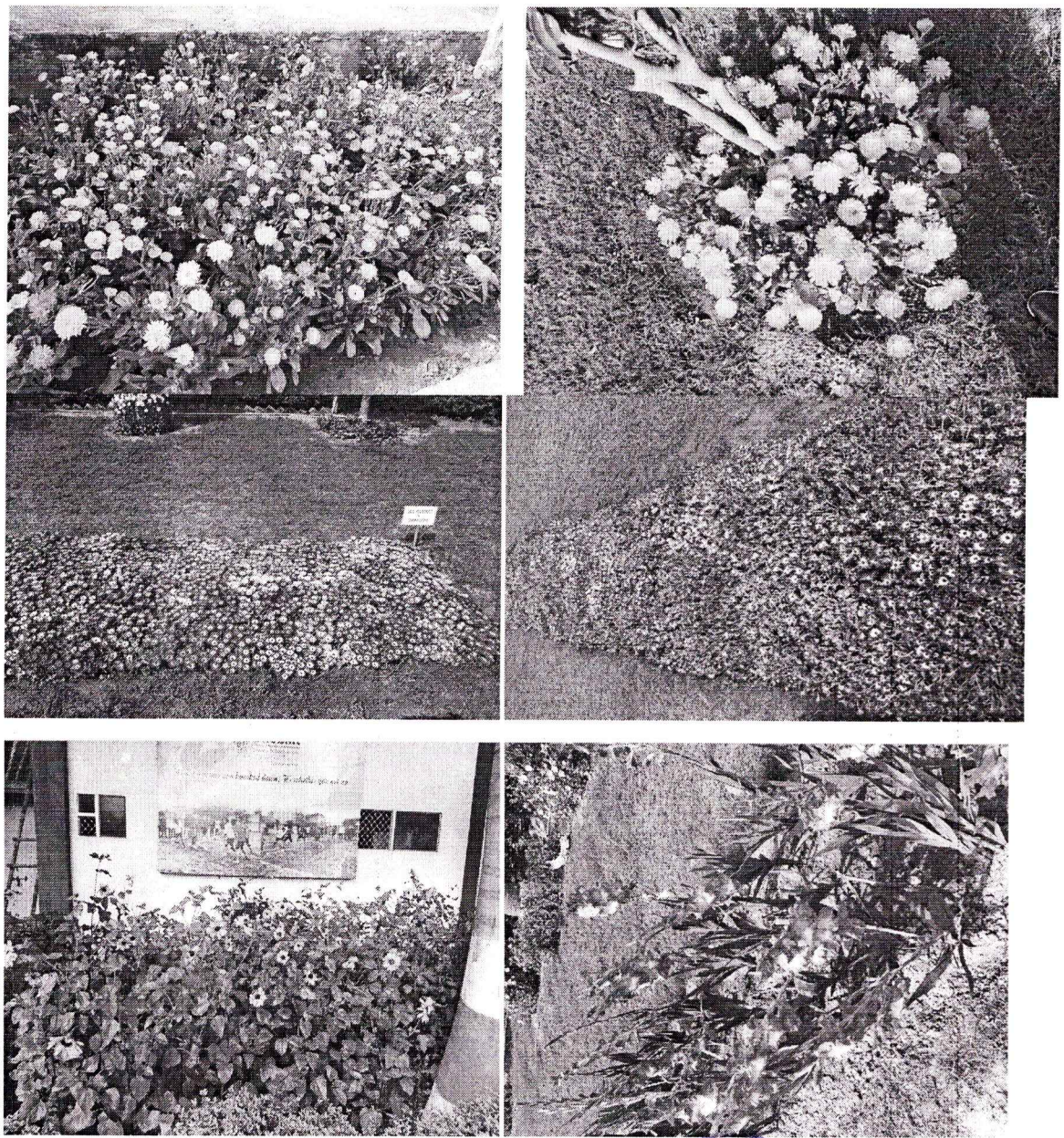
Registrar
Shobhit Institute of Engg. & Tech.
(Deemed to-Be University)
NH-58, Modipuram, Meerut-250110

European Vegetables:

II. Purple Cabbage, Red, Yellow Capsicum, White Brinjal Broccoli etc.

Flowers:

III. Gladiolus, Marigold, Dheliya, Calundula, Pitunia, Salvia, Poppy (in multi-Colors)



Registrar
Shobhit Institute of Engg. & Tech.
(Deemed to-Be University)
NH-58, Modipuram, Meerut-250110

SHOBHIT INSTITUTE OF ENGINEERING & TECHNOLOGY
Deemed to be University

On CRC Technical:

Nitrogen is a common element in nature. Approximately 78% of the earth's atmosphere consists of nitrogen gas (N_2). As nitrogen naturally cycles through the air, soil and water, it undergoes various chemical and biological transformations. These reactions result in the formation of nitrogen-based compounds and molecules, which are essential for the growth of plants, animals and humans. Agricultural production is dependent, in part, on the cycling of nitrogen within the rural environment. Illustrate the various forms and pathways that nitrogen (N) can take as it cycles through an agricultural production system. Before nitrogen can be used by plants, it must be converted into forms that are available to plants; this conversion is called mineralization. The plants take up these mineral forms through their root systems and form plant proteins and other organic forms of nitrogen. Livestock eat crops and produce manure, which is returned to the soil, adding organic and mineral forms of nitrogen to the soil, which can be used again by the next crop.

On CRC Farm:

Crops: Wheat, Yellow, Black Mustard & Sorghum

- Comparison between organic and inorganic farming.
- Raised and narrow beds methods.
- Developing an organic research farm.
- Multi cropping,early delight & different varieties.
- Crops- Wheat, Barley and mustard.

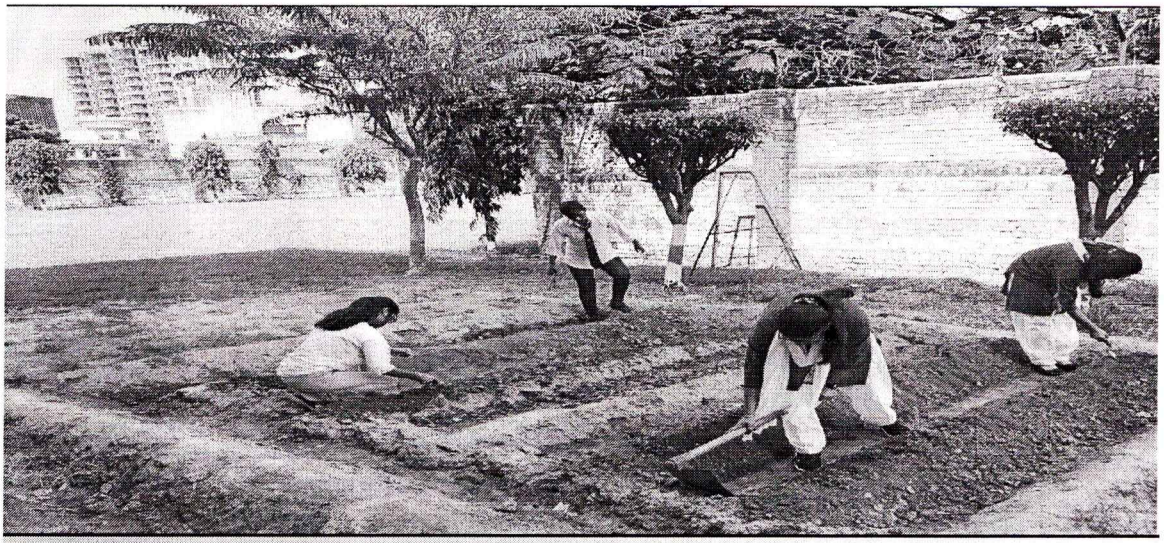
We are giving few tasks to the student of agriculture the details of these topics are given below.

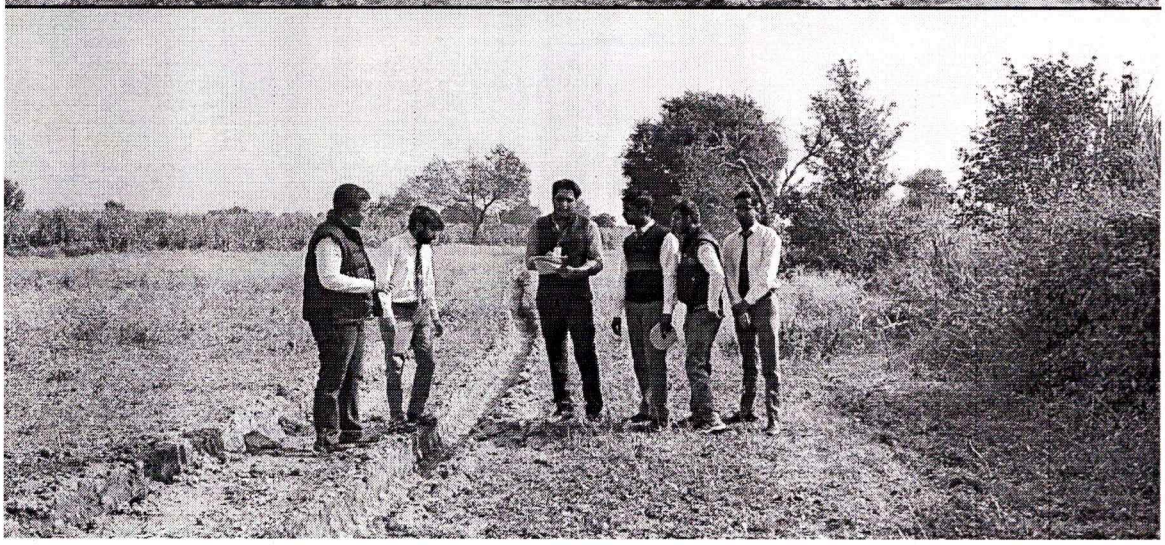
- Preparation of seed bed.
- Preparation of raised and narrow bed.
- Study of nursery raising techniques.
- Comparative study of planting techniques.
- Study of weed control methods.

Registrar
Shobhit Institute of Engg. & Tech.
(Deemed to-Be University)
NH-58, Modipuram, Meerut-250110

SHOBHIT INSTITUTE OF ENGINEERING & TECHNOLOGY
Deemed to be University

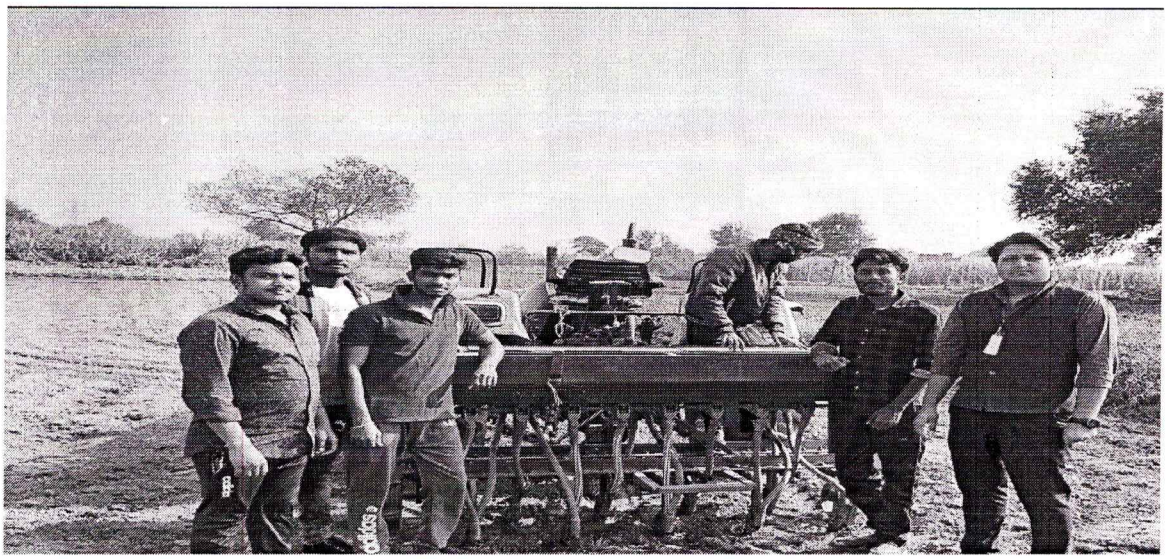
- Application of different irrigation techniques
- Study of soil conservation techniques.
- Comparative study of organic manure for sustainable soil health and crop production.

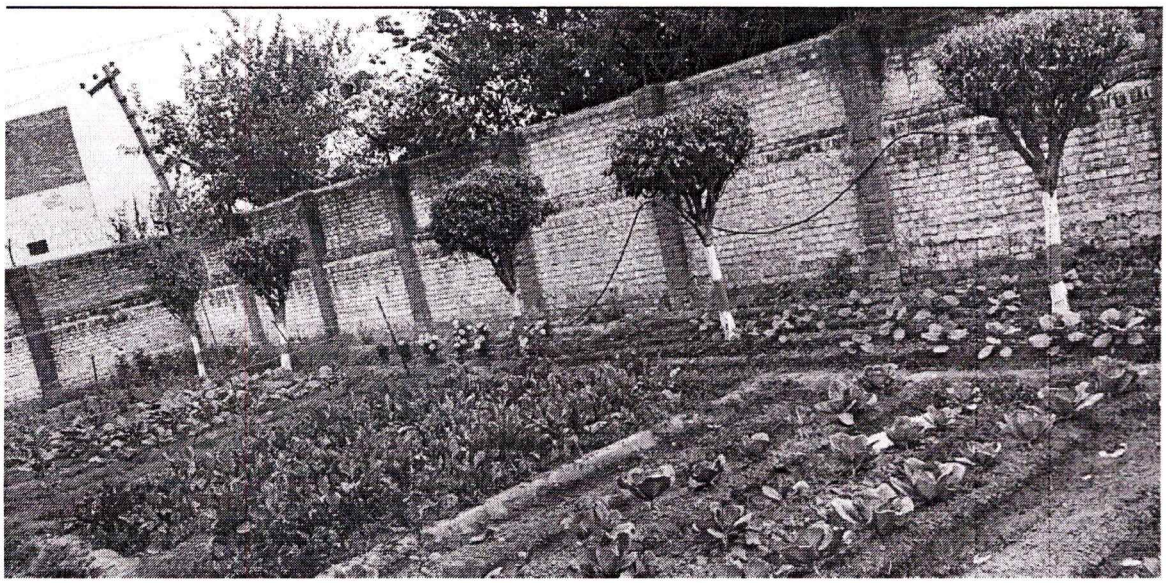




Registrar
Shobhit Institute of Engg. & Tech.
(Deemed to-Be University)
NH-58, Modipuram, Meerut-250110

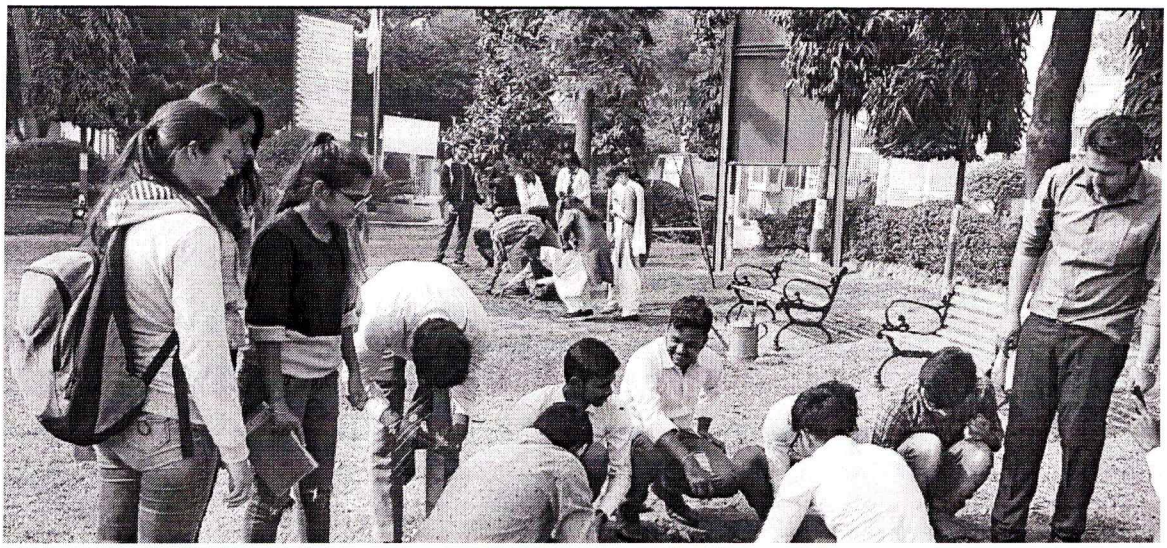
SHOBHIT INSTITUTE OF ENGINEERING & TECHNOLOGY
Deemed to be University





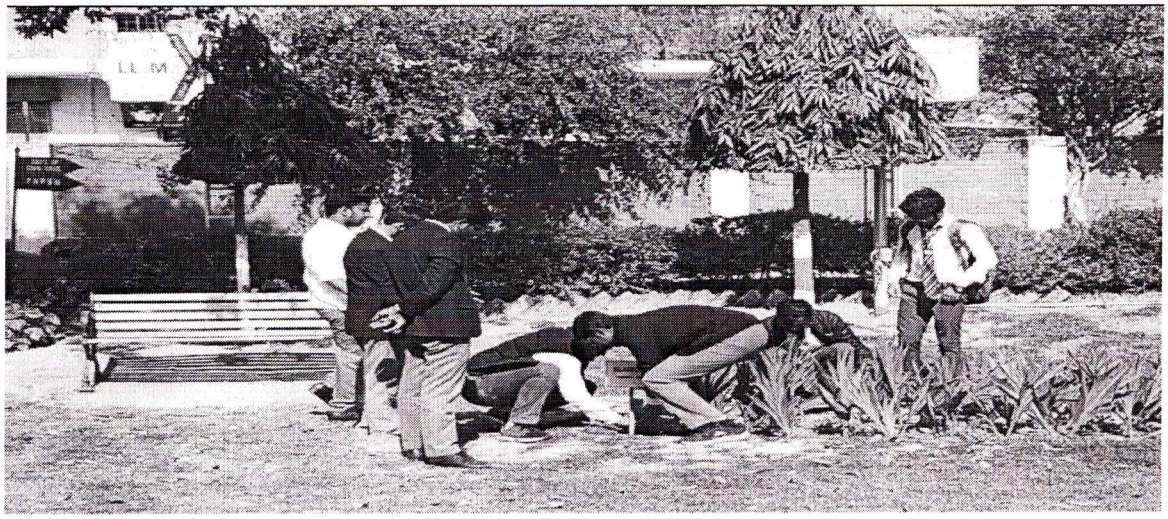
Registrar
Shobhit Institute of Engg. & Tech.
(Deemed to-Be University)
NH-58, Modipuram, Meerut-250110

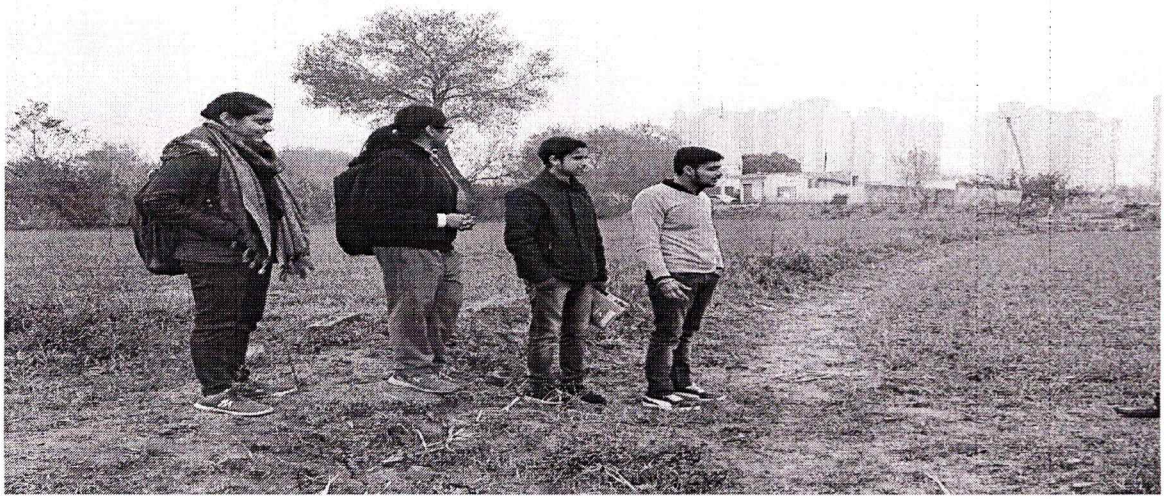
SHOBHIT INSTITUTE OF ENGINEERING & TECHNOLOGY
Deemed-to be University

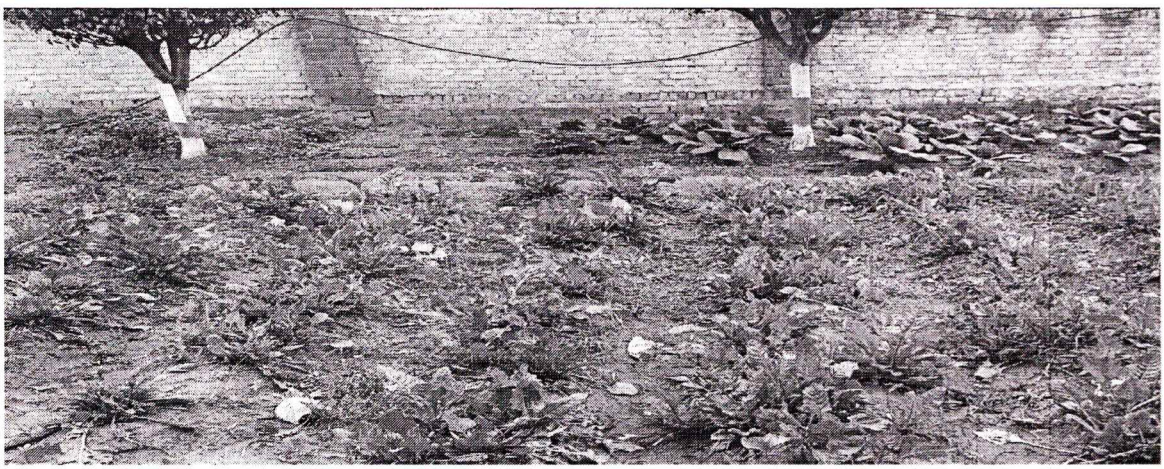


Registrar
Shobhit Institute of Engg. & Tech.
(Deemed to-Be University)
NH-58, Modipuram, Meerut-250110

SHOBHIT INSTITUTE OF ENGINEERING & TECHNOLOGY
Deemed to be University







SHOBHIT INSTITUTE OF ENGINEERING & TECHNOLOGY
Deemed to be University

Registrar
Shobhit Institute of Engg. & Tech.
(Deemed to-Be University)
Modipuram. Meerut-250110