

# V.C.S.G UTTARAKHAND UNIVERSITY OF HORTICULTURE & FORESTRY, BHARSAR COLLEGE OF HORTICULTURE, BHARSAR



## RURAL HORTICULTURE WORK EXPERIENCE(RHWE) HWE-101

**Coordinator** :-Dr. Ajaya Paliwal

CO-coordinator :- Dr. Dinesh Tiwari, Dr. Vijay Kumar, Dr. Rajnish Mishra

## Group no.3-

- Jyoti kanwal-13001
- Priyanka Prasad-13005
- Deepshikha sangri-13006
- Sushmita rana-13011
- Barkha pandey-13015

# RHWE-

- In India, Randhawa Committee of ICAR (1992) recommended the Rural Agriculture Work Experience (RAWE) Programme for imparting quality, practical and productive oriented education for the agriculture degree programme.
- RAWEP/RHWE is basic to develop graduate competence as a teacher, researcher and extension specialist.
- In IGKV, Rural Agricultural Work Experience Programme (RAWEP/RHWE) for under graduate students begins in 1994 and was offered during 8 semester. As per the new syllabus and guidelines provided by 4 Deans Committee of ICAR, RAWEP/RHWE begins from 2004 in 8 semester and now it will be offered in 7 semester corresponding to monsoon season.
- Under this programme, every student is expected to work in the village along with farmers and visit nearby KVK's or Research Station and Agro/Horti-based industries

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# OBJECTIVES OF RHWE-

1. To provide an opportunity to the students to understand the life situations in the villages, rural institutions, socio-economic conditions and constraints faced by the farming community.
2. To get the students familiar with the socio-economic conditions of the farmers and their problems with reference to agricultural development.
3. To impart diagnostic and remedial practical training and skills in crop production/horticulture/plant protection through work experience.
4. To develop the understanding regarding agricultural technologies being followed by farmers and to prepare alternate farm plans according to the local situation in consultation with the farmers.
5. To help the students to acquaint with on going thrust on rural development and programmers related to transfer of technology (TOT) programme related to agriculture and allied aspects.
6. To provide an opportunity to work with KVK's/Research Stations and Agro/Horti-based industries.
7. To develop the communication skills, confidence and competence among the students to interact with the farmers so as to prepare Project Reports on "Village Development Plan".

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# Musaiti map



## SOCIO-ECONOMIC SURVEY

<b>Village-</b>	<b>Musaiti</b>
<b>Block-</b>	<b>Thallisain</b>
<b>District-</b>	<b>Pauri</b>
<b>Population-</b>	<b>1050</b>
<b>Male-</b>	<b>425</b>
<b>Female-</b>	<b>290</b>
<b>Children-</b>	<b>335</b>
<b>Literate-</b>	<b>90%</b>
<b>Illiterate-</b>	<b>10%</b>
<b>Mahila mandal-</b>	<b>11 members</b>
<b>Yuva mandal-</b>	<b>11 members</b>
<b>Irrigation source-</b>	<b>canal</b>
<b>Main crops-</b>	<b>wheat,lentil,finger millet,barnyard millet, soyabean,barley,rice,amaranthus.</b>

DAYS	DATE	WORK DONE
1.	26/09/2016	<ul style="list-style-type: none"> <li>Meeting with farmers.</li> <li>knowing their problems and traditional methods of cultivation.</li> <li>seeking sites for establishment of different units.</li> </ul>
2.	27/09/2016	preparation of vermicompost pit threshing of amaranthus making of jowar brooms with villagers.
3.	28/09/2016	Coating vermicompost pit with cowdung and soil mixture Renovation and cleaning of pit for transforming it into compost pit. Collection of composting material.
4.	29/09/2016	Filling of vermicompost pit Selection of site for beehive Making base of behive
5.	30/09/2016	<ul style="list-style-type: none"> <li>visit to school</li> <li>Organising competitions among students.</li> <li>Prize distribution</li> <li>Planting around school premise</li> <li>Collecting woods for polytunnel preparation</li> </ul>
6.	01/10/2016	<ul style="list-style-type: none"> <li>establishment of polytunnel.</li> <li>Mud hive preparation.</li> </ul>
7.	02/10/2016	<ul style="list-style-type: none"> <li>telling villagers about different post harvest technologies and craft work.</li> <li>Making them aware of different schemes beneficial to them.</li> <li>Tutions in school.</li> <li>Landscaping of temple,planting of different ornamentals in school.</li> </ul>

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DA YS	DATE	WORK DONE
8.	03/10/2016	Clearing of paths and collection of nettle leaf plant for bioheap preparation. Raised bed preparation for onion nursery.
9.	04/10/2016	Bio heap preparation Establishment of fodder block
10.	05/10/2016	<ul style="list-style-type: none"> <li>preparation of vermiwash</li> <li>Preparation of blue and yellow sticky trap</li> <li>Bottle gardening.</li> </ul>
11.	06/10/2016	Filling of compost pit Making shed for compost pit and vermicompost.
12.	07/10/2016	Mulching in raised mud Spray of chemicals
13.	08/10/2016	Data collection Preparation of shed for mudhive.
14.	09/10/2016	Interaction with villagers and demonstration of mushroom and other things.

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## UNITS ESTABLISHED

- Vermicompost
- Poly tunnel
- Mudhive
- Bio heap
- Vermiwash
- Compost pit
- PHT work
- Planting in village
- Fodder block
- Light and sticky traps
- Mushroom demonstration

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## STEPS OF VERMICOMPOSTING

NAME OF FARMER – MR.AMRISH BISHT

DIMENSION –2X 1X .75 M

NAME OF EARTHWORM-RED WIGGLER

- Selection of site.
- Digging of pit(2×1×.75)
- Spread of polysheet in pit.
- Filling of pit.
- Layer 1-green matter without flowering and fruiting.
- Layer2-hay straw
- Layer 3-cattle dung and water in equal ratio
- Fill pit by repeating these layers.
- Preparation of shed.
- Channelization for drainage.
- Introduction of earthworms after 24 days.



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## PORTABLE POLYTUNNEL-

**Name of farmer- Mr.Nandan Bisht**  
**Dimension- 2.5m x 1.2m**

### Steps-

- Site selection.**
- Preparation of raised bed.**
- Preparation of frame.**
- Spreading of white polysheet.**



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# MUDHIVE

**Name of farmer – Mr.Nandan bisht  
Dimension-45cm X 30cm X35cm**



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- Site selection
- Making base of mud hive
- Preparation of mixture
- Forming walls according to frame & make a hole in eastern side wall
- Put a sugar solution to attract bees
- Closure of mud hive with wooden ply

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## Bio heap

- Name of farmer- Mr.Birendra Singh.

### STEPS-

- Selection of appropriate site.
- Make heap by spreading layers.
- Spread first layer of nettle leaves.
- Layer two is of cattle dung.
- Repeat these layers and make heap.
- Shape of heap should be conical.
- Finally coat this heap with mixture of cattle dung and soil.



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### Collection of nettle leaf plant



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## VERMIWASH-

- Name of farmer- Mr Sanjay Singh Bisht
- Steps-
  - Take a suitable container.
  - Drill a hole at the base of the container for a proper outlet.
  - Put a base layer of pebbles.
  - Over it put another layer of coarse sand.
  - Third layer is of soil.



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- Fourth layer-cattle dung.
- Then place sufficient amount of earthworms.
- Finally place a layer of straw.
- Suspend a small bucket with some holes above the container.
- Fill container daily with water.
- Vermiwash starts forming in container after 10 days.





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# LANDSCAPING IN TEMPLE



## Clearing of land

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# o Bottle gardening in temple



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## Demonstration of post harvest technologies and craft work

### Chilli Pickle making-

Ingredients used-Chilli, Fenugreek, Cumin, Salt, and Vinegar.



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## Madua laddoo making

### Ingredients used-

Madua flour,  
Ghee,  
Grind sugar,  
Dry fruits.



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## Craft work-greeting cards and pine needle

### GREETING CARD MAKING



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# BASKET MAKING



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# Mushroom demonstration



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## Telling them about training and pruning





# Demonstration about budding and grafting



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# Telling about bee keeping-



## Telling them about various technologies, schemes and programmes beneficial to them-



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## WE TOLD THEM ABOUT-

- *Government schemes.*
- *Soil recommendations, soil solarization techniques.*
- *Grafting and budding*
- *Training and pruning*
- *Self help groups*
- *Seed treatment techniques.*
- *About new agricultural technologies.*
- *Girls education.*
- *Health and hygiene.*
- *Bee keeping.*

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# INTERACTION WITH SCHOOL STUDENTS-



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# Teaching in school-



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## PLANTING IN SCHOOL PREMISE



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## PROGRAM ORGANIZED IN SCHOOL ON 2 OCTOBER-





## Compost pit

Name of farmer- Mr.Madan singh

### Steps-

- Select a suitable site.
- Dig a pit.
- Spread polysheet at base to prevent leaching.
- Add organic matter like leaf litter, plant waste, kitchen waste etc to pit.
- Add cattle dung and cow urine.
- Put a layer of dry soil.
- Repeat these layers.
- Sprinkle water daily to maintain moisture content of 55-60% .





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### Covering pit with soil



### Preparation of drainage



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# Napier planting

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Site selection



Clearing of land



## Planting-50 X 50 cm

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## ADVANTAGES OF NAPIER GRASS-

- It is easily propagated
- it has soft stem that is easy to cut.
- It has deep roots,so is fairly drought resistant.
- Tender,young leaves and stems are very palatable for livestocks.
- It grows very fast.
- It is of perennial nature.

## Preparation of different insect traps





# Preparation of nursery beds



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# Raised nursery beds



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**Sowing onion in nursery bed.  
Bed size-2m x 1m  
Spacing-5-7 cm between rows.**



**Irrigation**



# Mulching

**Inorganic mulching**



## Organic mulching



## DISEASE MANAGEMENT-

### Disease-alternaria leaf spot in cabbage and radish



## SOIL SAMPLING-



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## DISTRIBUTION OF PLANTING MATERIAL-



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# LEARNING THEIR DAY TO DAY ACTIVITIES



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## Problems identified in village-

- They were not familiar with new agro techniques.
- Most of the youths are migrating towards plains, therefore working population in village is less.
- Problems of wild animals.
- Improper utilization of available raw materials.
- Lack of awareness among villagers.
- Lack of mechanization.
- Scarcity of capital.
- Overdependence of traditional crops like rice and wheat.

## OUTCOMES OF RHWE PROGRAMME-

Effective decision making.  
 Leadership quality development.  
 Communication skills development.  
 Knowing their culture.  
 Knowing and learning day to day activities of villagers.  
 Knowing about traditional methods of farming and practicing scientific methods.  
 Efficient utilization of available resources.



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