

Skill Hub Initiative

Pradhan Mantri Kaushal Vikas Yojana (PMKVY 3.0)
Ministry of Skill Development & Entrepreneurship, Government of India

Job Role: Vermicompost Producer

(14 March 2022 - 12 May 2022)



REPORT

Organized By

Community College

Kanad Bhavan

Dr. Harisingh Gour Vishwavidyalaya

(A Central University)

Sagar 470 003 (M.P.)

Dr. Harisingh Gour Vishwavidyalaya (A Central University), Sagar, has launched a programme for the *Job role Vermicompost Producer* on March 14, 2022 to develop skills in people under the age of 45 who are either school dropouts or dropped out from the educational system. The course consists of 200 hours of training (90 hours of theory and 110 hours of practical classes), with a 70% attendance requirement for the final exam. Thirty-six students were registered for the course,



Hon'ble Vice chancellor addressing gathering during the inaugural address on 15th March, 2022.

but two of them were unable to continue because their Aadhar card numbers had already been registered for other courses on the Skill Hub Initiative website, and one student had an issue with their Aadhar card, which was reported as an error 06 (Locked Aadhar card). As a result, there were thirty-three students in the class at the launching of the course. On March 14, 2022, students' records, including their Aadhar card, mark sheet, and photo, were uploaded on the Skill Hub Initiative Portal through online system. As most of the students were from rural areas and had little knowledge of computers, the uploading of records was handled by Training Provider and Nodal Officer Prof Shweta Yadav with the assistance of community college staff.



Group photograph of students registered under Skill Hub initiatives on March 15, 2022.

The Inauguration ceremony was held on March 15, 2022 for the Job role of Vermicompost Producer. Prof. Shweta Yadav welcomed the Chairpersons, faculty members and all the participants and gives a brief introduction about the course and its significance. The programme was formally inaugurated by Ms. Shriya Jain, Chief Executive Officer, Cantonment Board, Sagar, under the Chairmanship of Hon'ble Vice Chancellor Prof Neelima Gupta, Dr. Harisingh Gour Vishwavidyalaya, Sagar (MP). Ms. Shriya Jain, in her inauguration address, stated that this is a fantastic opportunity for school dropouts to learn technology and apply it to business. During the Presidential address, the Hon'ble Vice Chancellor informed students that this is the first time when University doors has been opened for schools' dropouts or those who are not in education, and she encouraged them to make use of the opportunity to the fullest. She informed students that the University will recognize the top three students who would receive the highest grades for this course. She also gave emphasis that this course is very useful for the participants to make them self-employed and will be a forwarding step towards “Atmanirbhar Bharat”. Prof Naveen Kango, Director Academic Affairs and Prof Subodh Jain, Head Department of Zoology, also addresses the gathering with their encouraging words and focused on the benefits of organic fertilizers and Vermicompost for the self-employment. Dr. Sarvendra Yadav, Assistant Professor, Department of Anthropology, convene the event and Dr. Rajesh Singh Yadav, Assistant Professor, Department of Criminology and Forensic Sciences, gave the vote of thanks.



Group photograph of instructors involved for successful execution of the course on 15 March, 2022.



Prof Shweta Yadav, Nodal officer presenting the course schedule on 15th March, 2022.

After the inaugural session, the technical session began, with the students interacting with the Vermienterpreneur Mr. Anil Kumar Kushwaha, followed by Prof Shweta Yadav's introduction of the Bridge module.



Vermienterpreneur Mr. Ramsewak Kushwaha and Prof. Shweta Yadav interacting with students on 15th March, 2022.

Date: March 16, 2022

There was an issue taking attendance with fingerprints, therefore Nodal Officer, Prof Shweta Yadav's team was in constant contact with the National Development Council's supporting personnel. Finally, on the third day of the course, on the 16th March 2022, the issue of attendance with the fingerprinting machine was resolved around 12PM, and students began to mark their attendance using an Aadhar Enabled Biometric Attendance System (AEBAS). On the same day Prof. Shweta Yadav discussed the relevance of organic carbon in the soil and the scope of organic farming. Students learned how to identify earthworms during a practical exercise. The clitellum, Male pore, setae, and prostomium were among the morphological characteristics were demonstrated, and students learned them practically under the microscope. Ms. Nalini Tiwari, Research Scholar, Department of Zoology, led the practical session. Bilingual communication, Hindi and English were used to help students grasp the theoretical and practical lessons.



Glimpse of students learning identification of worms during the practical session; Que of students registering their attendance on Aadhar Enabled Biometric Attendance System (AEBAS) on 16th March, 2022.

Date: March 17, 2022

A field tour was scheduled on the fourth day of the course. Students went to Proagro Biotech Vermiculture Unit in Manpani, Sagar. Students learned about an integrated composting approach as well as different vermicomposting methods. The unit was comprising 30 Vermiculture Units and 08 Windrows Beds. Students were ecstatic to learn about the technology's new initiative. They learnt product processing, harvesting, packing, and marketing. Students were also shown how Vermiwash, a liquid fertilizer, is made. The students have interacted with workers at the unit. It was asked them to write a field report that includes all of the necessary aspects of a Vermienterpreneurship. Community College Staff, Mr Nishank Sharma facilitated the field visit.



A view of field visits of Students in Proagro Vermiculture Unit, Sagar on 17th March, 2022.

Date : March 21, 2022

The various components of the green revolution, such as chemical fertilizer, insecticides, and high yielding varieties, were demonstrated on the fifth day. The students were informed about the detrimental effects of conventional Farming. They were told that the primary disadvantages of conventional farming include soil depletion, soil compaction, stubble burning, loss of traditional knowledge, increased use of agrochemicals, and a drop in the cost-benefit ratio. Organic farming, on the other hand, is a holistic approach to living systems that encourages the utilization of biological cycles and investigates biological interactions. During the practical session, students separated the worms based on the morphological features they have learned. Students have shown substantial interest in segregating worms based on the characters they have learned. Mr. Muneer Malla, Research Scholar, Department of Zoology, was in charge of the practical session.

Date: March 23, 2022

Prof Shweta Yadav, Nodal Officer and Training Provider provided an overview of soil micro and macronutrients. She also stated that Indian ancient physicians developed two excellent medicinal systems, namely 'Sidha' and 'Ayurveda,' which are now recognized as 'healthy friendly' systems. Students were informed about the practices described in "Vrikshayurveda," which include seed collection, selection, and storage, germination, sowing, various techniques of plant propagation, grafting, nursing, and irrigation, testing and classification of soil, selection of soil suitable for various plants/types of plants, manuring, pest and disease management, and so on. Students were briefed on four different organic farming concepts: organic, living soil, holistic, and healthy plant. The identification of vermicomposting worms *Eisenia fetida*, *Eudrilus eugeniae*, *Lampitoma mauritii*, and *Perionyx excavatus* was demonstrated during the practical session. Ms. Nalini Tiwari, Research Scholar, Department of Zoology, led the session.



A view of practical session led by Ms. Nalini Tiwari on 23rd March, 2022.

Date: March 24, 2022

Mr. Muneer Ahmad Malla, Research Scholar; Department of Zoology, provided a general overview of vermicomposting. He also discussed about the identification of appropriate site and preparation of beds for vermicomposting. Students were also informed about the different types of vermicomposting system and construction of vermicomposting structures such as bed type, pit type and HDPE containers. Ms. Nalini Tiwari, Research Scholar, Department of Zoology, led the practical session and demonstrated the anatomical features of vermicomposting species.



A view of Mr. Muneer Ahmad Malla taking theory class on 24th March, 2022.

Date: March 25, 2022

Dr. Tuneera Bhadauria of Raebareli's Feroze Gandhi P.G Degree College presented the various vermicomposting techniques and their applications. The fundamental needs for vermicomposting were reviewed, as well as the role and significance of bacteria in composting. She talked about her vermicomposting experience in the Central Himalaya, North East India, and the Indogangetic Plains. She also demonstrated how to make vermiwash as well as how to use it as a liquid biofertilizer.



A view of the theory class led by Dr. Tunira Bhaduria on 25th March, 2022.

Date: March 26, 2022

Ms. Kiran Singh, Research Scholar, explained the characterization procedures of several earthworm species for vermicomposting production. In the Department of Zoology, students learned how to make vermibed and how to set up Windrows and HDEP vermicomposting beds. Before going to vermicomposting unit, the students performed pre-decomposition of organic materials. Mr. Nishank Sharma led the session. The setting of the vermibed piqued the students' curiosity.



A view of practical session led by Ms. Kiran Singh and Mr. Nishank Sharma on 26th March, 2022.

Date: March 28, 2022

Shri Akash Choriysia, a Vermienterpreneur who produces vermicompost on a big scale, was the subject of a field visit. Students were shown the multier technique of organic gardening. They learned how to integrate vermicompost in permaculture to grow a variety of crops. Mr. Nishank Sharma then presented the contents of the website www.vermicompostingtraining.com and how they would apply the material at their own production plant.



A view of the practical demonstration of Vermiculture Unit during field visit on 28th March, 2022.

Date: March 29, 2022

Dr. C.P. Uppadhyya of the Department of Biotechnology discussed soil nutrient management. The description was given in great depth. Soil micro and macro nutrients were discussed. The various soil sample methodologies were also discussed. Various organic materials are often used to enrich nutrient control in soil. He also described the processes for taking soil samples. He described the influence of primary and secondary nutritional deprivation on production. Ms. Kiran Singh showed cocoon, juvenile, and adult calculation and offered them practice during the practical session. Students kept an eye on the vermibed and made sure it was wet.



A view of the theory class led by Dr. C.P. Uppadhyya on 29th March,2022.

Date: March 30, 2022

On 30th of March, Prof. Radha D Kale, University of Agricultural Sciences in Karnataka, lectured on various ways of vermicomposting technique. She also taught how to fortify vermicompost using *Trichodema*, *Azotobacter*, and Phosphorous Solubilizing bacteria. She also spoke about the preparations of vermiwash and vermimeal. She recommended that 2 percent neem cake be added to decaying material to boost the growth of nitrogen-fixing bacteria, and 2-3 percent rock phosphate be added to increase the phosphorous level and the level of p solubilizer. She also explained the life cycle of *Eudrilus eugeniae*, explaining that for the first two years, the species continues to produce cocoons, but after the second year, the cocoons are no longer viable, and the species progressively ceases producing cocoons, eventually dying in the third year. In the second session, Ms. Pooja Tiwari, Research Scholar, Department of Zoology led the practical session and demonstrated the sieving and packing of vermicompost.



Prof. Radha D Kale discussing various vermicomposting ways with the students on 30th March,2022.



A view of the practical session led by Ms. Pooja Tiwari, wherein students were taught about the sieving and packing of vermicompost on 30th March,2022.

Date: March 31, 2022

Ms. Nalini Tiwari, Dept. of Zoology discussed life cycle and life span of earthworm species, the comparison of the lifecycle of some vermicomposting earthworms. Inoculation of earthworms on vermicomposting bins in appropriate ratio which mainly depends upon various environmental factors as well as on owner's requirement. Significance of pre-decomposition of organic wastes before distribution of earthworm on vermibeds. Maintenance of moisture content, proper aeration in vermicomposting unit and its significance. Why proper covering of vermicomposting material is needed what type of cover is considered as best suitable for proper covering of vermibeds was discussed. Mr. Muneer Ahmad Malla demonstrated the production of the liquid biofertilizer Vermiwash.



A view of the theory class led by Ms. Nalini Tiwari on 31st March, 2022.

Date: April 1, 2022

Dr. Jaswinder Singh, Khalsa College Amritsar spoke about the recent developments in vermitechnology and how farmers in North India are successfully implementing this technology. It's critical to know what sort of food you're feeding to earthworms if you want them to multiply. The ravenous behavior of earthworms is critical for increasing their numbers and compost output. Worms are chosen based on their habitat and the pH of the food they eat. Anecic species dig vertical burrows and emerge from them at night. Endogeic species burrow horizontally and are rarely used for vermicomposting. Vermicomposting mainly involves *Epigeic* and *Anecic* sps. *Eisenia fetida* and *Eudrilus eugeniae* are commonly used in vermicomposting in the majority of areas. *Eisenia veneta* may be distinguished from *E. fetida* by its yellow tail. Besides, this he also discussed the key requirements such as particle size 25-75 mm, temperature 25-35°C, moisture 60-70% for vermicomposting. Calcium is required for cocoon formation and pH 7 to 8 is essential. He also elaborated two tank and four tank system for vermicomposting. Apart from Vermicompost, live worms, cocoons, coelomic fluid, vermiprotein, pharmaceutical are other important products of the

technology. In the end, Dr. Singh discussed various medicinal properties of earthworms including xanthine, succinic acid and lumbricin, which aid to relax airway muscles, soothe the respiratory system and acting as a blood thinner respectively. There are antibacterial characteristics in Lauric acid (Dodecanoic acid) and fatty acids, and that it functions as precursor to monolaurin, which can combat lipid coated RNA and DNA viruses, numerous Gram +ve bacteria, yeast, and several pathogenic protozoa. Myristic acid helps to enhance the immune system by stabilizing proteins, while stearic acid is widely used as lubricant and used as an additive in industrial preparations. To conclude Dr. Singh, discussed the role of earthworm in environmental management as well by giving the examples of Vermifilters for waste water treatment since it works as bio-filter and they have been found to remove BOD, COD and total dissolved solids (TDS) by over 90%. It accumulates lead, cadmium, nickel, mercury and zinc and has more metal binding proteins.

Mr. Nishank Sharma demonstrated the preparation of vermibed and students look after the vermibed installed by them.



Dr. Jaswinder Singh discussing about the recent developments in vermicomposting and the future research prospects on 1st April, 2022



A snapshot of the practical session led by Mr. Nishank Sharma, where in students were demonstrated about the management of the vermi-bed on 1st April, 2022

Date: April 2, 2022

Students went to the Cantonment Board in Sagar to learn about the Vermicomposting facility, which uses municipal and other wastes. The conversion of municipal garbage into vermicompost has attracted the students' curiosity. They gathered earthworm samples and brought them to the laboratory. For identification, they were explored to worm narcotizing procedures. During the theoretical session, Prof Adarsh Pal Vig of Guru Nanak Dev University, Amritsar (Punjab) explained the troubleshooting aspects of vermitechnology and recommended that avoid over watering, citrus, acidic food during the vermicomposting process. He added that the earthworm's alimentary canal is a vital organ that houses a variety of microorganisms. Earthworms lack eyes and ears, and they breathe *via* moist skin. Both partners may generate eggs since they are hermaphroditic. Turners, mixers, and pathogen controls are among their beneficial aspects. He also discussed the physical, biological, and chemical characteristics of vermicompost. There are eight times more microorganisms in vermicompost than in farm yard waste. The vermitechnology may play an important role in the Indian Government's Swatch Bharat Abhiyan. Vermicompost may be made from any waste material, including beverage, paper, tannery, textile, distillery, and thermal fly ash.



A view of the practical demonstration of Vermicomposting (a and b) during a field visit and Nishank (c) Ms. Kiran Singh demonstrating the preservation and identification of earthworms on 2nd April, 2022.



Prof. Adarsh Pal Vig (GNDU, Amritsar) discussing about the vermitechnology and various approaches to troubleshoot the difficulties in vermicomposting on 2nd April, 2022

Date: April 4, 2022

Dr. Ashish Tripathi, Senior Scientist, Jawaharlal Nehru Krishi Vishwa Vidyalaya (JNKVV), Jabalpur delivered a talk on vermicomposting and its marketing. Initially, he provided a glimpse of soil deterioration by chemical fertilizers. He also spoke about the vermicompost and mentioned that the essential nutrients such as nitrogen, potassium and phosphorous vary with respect to the organic waste used. He also mentioned about the PSB (phosphate solubilizing bacteria) and its importance for plant growth, and explained the methods to prepare waste decomposers. In the second part he demonstrated the ways to estimate the essential soil nutrients, and recommended the use of vermicompost in nutrient deficient soil. In the end he shared his experience with vermicomposting and its benefits to overcome pest infestation.



Dr. Ashish Tripathi discussing about vermicomposting and its marketing on 4th April ,2022

Mr. Nishank Sharma led the practical and demonstrated the appropriate composition of soil and vermicompost for planting ornamental plants.



Mr. Nishank Sharma, demonstrating and helping the students to planting ornamentals plants with vermicompost on 2nd April, 2022.

Date: April 5, 2022

Prof. Swarndeeep S Hunadal of Punjab Agriculture University in Ludhiana spoke on the impact of environmental toxins on earthworm ecology reproduction. Learning technology will help you become an entrepreneur. In order to grow entrepreneurship, try to go over the best from better. An entrepreneur is a business leader who seeks out new ideas and implements them to promote economic growth. Stick to one path until you reach your goal. Every year, we generate 400 million tonnes of solid garbage, the majority of which is food waste. Solid waste has potential value in terms of both the environment and the economy. Organic trash, hazardous waste, recyclable waste, and soiled waste are examples of environmental contaminants (hospital waste such as cloth soiled with blood and other body fluids). Landfills, dumping, pyrolysis (gasification), incineration, vermiculture technologies, and microwaves can all be used to manage solid waste. Feeding and burrowing earthworms are classified as epigeic, endogeic, or anecic based on their activity and preferences in relation to their environment. It is an ecological indicator and plays a significant role in nutrient cycling, soil dynamics, and water availability. Earthworms have been found to be an important transport agents of microplastics in soils, integrating this material into soil through casts, burrows (which alter soil hydraulics), egestion, and adherence to the earthworm exterior. He also explained how different nanoparticles affect earthworms compost production, the frequency and limit of loading the waste and properties of the vermicompost. Moreover, he also discussed the precautions required during the vermicomposting.



Prof. Swarndeeep S Hunadal, while speaking about the impact of environmental toxins on earthworm ecology and reproduction on 5th April, 2022.

The second session was led by Mr Munner Ahmad of the Department of Zoology, who addressed the problems and troubleshooting of vermicomposting process.



A view of the class led by Mr. Muneer Ahmad, wherein he discussed various systems of vermicompost production on 5th April, 2022.

During the practical session, Mr. Samrendra Singh Thakur of the Department of Biotechnology showed how to measure the pH of vermicompost.



Mr. Samrendra Singh demonstrating the pH measurement of vermicompost on 5th April, 2022.

Date: April 6, 2022

Mr. Muneer Ahmad Malla, Research Scholar; Department of Zoology, provided a general overview of the various methods of vermicomposting. He also discussed about the large scale and small scale vermicompost productions. During his class he also discussed about the identification of appropriate and suitable organic wastes materials for vermicompost bedding. He also spoke on bulking potential of some of the commonly used bedding materials.



Mr. Muneer Ahmad, interacting with the students during a class on 6th April, 2022.

Mr. Samrendra Singh Thakur of the Department of Biotechnology showed how to measure the various physico-chemical properties (macro and micro nutrients) in vermicompost.



Mr. Samrendra Singh demonstrating the measurement of electric conductivity of vermicompost on 6th April, 2022.

Date: April 7, 2022

Mr. Muneer Ahmad Malla, Research Scholar; Department of Zoology, during his class discussed about the different systems of vermicompost. Moreover. He also discussed about various advantages and disadvantages of the different vermicompost systems. He also discussed the appropriate procedures for setting up the vermibed and the appropriate number of worms to be inoculated in each bed according to the availability of the organic waste.



Mr. Muneer Ahmad, interacting and discussing with students on 7th April, 2022.

Mr. Samrendra Singh Thakur of the Department of Biotechnology led the practical session and discussed about the various physico-chemical properties of vermicompost.



Mr. Samrendra Singh discussing with students during the practical session, on 7th April, 2022.

Date: April 8, 2022

Prof. O.P. Agarwal, former Professor at Jiwaji University in Gwalior (MP), discussed the fundamentals of vermicomposting. He spoke about earthworm availability and promotion of polyculture vermireactors and suggested that it could be an additional source of revenue that encourages long-term growth. Vermicomposting is a simple method for managing solid waste. The earthworms that emerge during rainstorms cannot be used for Vermicomposting. It is an interdisciplinary approach to vermi-enterprise in which nursery management, dairy, and other stake holders can participate. It is more than six times more effective than other composting methods. In metropolitan areas, the process of vermicomposting is becoming more popular among residential societies. This has a lot of potential for long-term sustainable development. He also emphasized the need of vermicomposting and consuming a diverse range of organic foods.



Prof. O.P Agarwal interacting with the students on 8th April, 2022

Ms. Nalini Tiwari, Department of Zoology, during her class discussed about the identification of suitable species of earthworms for vermicomposting. She also discussed the process of making vermicompost, maintaining favorable conditions (like temperature, aeration and moisture) in the vermibed. Besides that she also taught about the preparation of feed and making vermicompost unit. In the end she also talked about how to control and eradicate various predators.



A view of the theory class led by Ms. Nalini Tiwari, Research Scholar, Department of Zoology on 8th April, 2022.

Ms. Kiran Singh, Research Scholar, Department of Zoology led the practical session and discussed about the organic carbon in the compost and taught their procedure of estimation.



A view of the practical session led by Ms. Kiran Singh, Research Scholar, Department of Zoology on 8th April, 2022.

Date: 11 April, 2022

Ms. Kiran Singh, Department of Zoology, began the day with a practical demonstration of organic carbon in vermicompost. Later, Prof. V.K Garg of the Central University of Bhatinda, Punjab discussed the qualities of several waste materials. The first stage of the revolution began after the fire, and the second occurred when they began farming. The impact of the Industrial Revolution on the environment shifted in 1850. He emphasized the massive amounts of municipal waste generated in India's main cities, with Mumbai leading the pack in terms of waste output. This varies depending on the state of the economy. The main sources of solid waste are residential, industrial, commercial, and agricultural. Packaging trash generates a large amount of waste. Crop leftovers, animal wastes, and soiled crops are the most common agricultural wastes. In Punjab and Haryana, the burning of stubble is the most critical thing. The estimated amount of waste that is made each day is 1,00,000 MT. 40 percent of them are made of things that break down, 2 percent are made of grass, and 1 percent are made of plastics. He informed that 120 families are now running their families after using these wastes. To show that this waste is valuable, we need to turn these wastes into a valuable product that can be seen. This waste can be treated by Vermicomposting and can be turned into a business. pH should be between 7 and 9.0. The salt is also very bad for earthworms because it makes them sick. If you are going to use dung for vermicomposting, don't use urine from cows. It might create ammonia more. When you want to compost, you have to put organic waste in the ground for 20 to 21 days to make it work. Home waste can be used after it has been added for one month. In order to make good vermicompost, you should mix 40% dung with 50% to 60% solid waste. Vermicompost has indeed been added to the fertilizer act of India recently. People can use the water hyacinth and waste from a sugar factory to do vermicomposting if they add 50% dung. People who live in colonies of

vermicomposting worms can use four wind chambers to do this. There are plants that can be used for vermicomposting. The number of products you can work on during the vermienterprenuship. If you want to set up training programs for farmers, you can do that, too to start with, you can start at schools. This will make it a habit for students to manage solid waste from when they were young. Slurry from a biogas plant can be used for vermicomposting very quickly. The method of vermicomposting that combines biogas slurry with vermicomposting is very good. Council for Advancement of People' Rural Technology (CAPART) and the Ministry of Renewable Energy, Government of India, grants fund to people who want to set up vermicomposting plants. It was in the second session that Prof. Shweta Yadav talked about how to harvest vermicompost and can be differentiated it from the immature compost. Students submitted assignment for Unit 1.



Prof. V.K Garg; discussing various qualities of waste materials and role of vermitechology in converting waste to wealth on 11th April, 2022.

Date: 12 April, 2022

Dr. Ashwani Kumar, Department of Botany spoke on Agriculturally Important Microbes and the significance of plant growth-promoting rhizobacteria in agriculture. He defined the terms phyllosphere and rhizosphere. Dr. Kumar in his lecture, discussed the possible roles of microbes and termed that these unseen creatures can be beneficial, harmful, or unsightly. Immune responses, abiotic stress tolerance, growth and development, nutrition acquisition, pathogen defense, and physiology/metabolism in plants are all developed by the rhizosphere microbiome. The obnoxious bacteria have the potential to contaminate food and cause plant illnesses. He described the Phyto-microbiome of various plant components colonized by bacterial and fungal species, as well as the importance of the microbiome found within the plant. The rhizosphere is a thin and active zone of soil around the plant root that is influenced by a variety of variables such as root exudates and soil microorganisms. It's a changing environment that changes with the stages of root

development and senescence. The rhizosphere is in charge of a variety of metabolic processes in the soil. *Bacillus*, *Arthrobacter*, *Pseudomonas*, *Agrobacterium*, *Alcaligenes*, *Clostridium*, *Flavobacterium*, *Micrococcus*, *Xanthomonas*, *Micromonospora*, and others are among the organisms present in the rhizosphere. Plant growth promoting bacteria (PGPR) colonize plant roots in the soil. They have the potential to decrease the damage caused by insects and diseases. Plant growth is facilitated, either directly or indirectly, by mobilizing nutrients in the soil. It also reduces the world's reliance on dangerous agricultural pesticides. They can act as biofertilizers, biostimulators, rhizomediators, and bio pesticides based on their functional activities. The biofertilizers activity or direct mechanism of action includes nitrogen fixation, phosphate solubilization, potassium solubilization, siderophore production, and phytohormone production, while the indirect mechanism or biocontrol activity includes antibiotic production, lytic enzymes, induced systemic resistance, and exopolysaccharide production. Rhizobacteria and *Frankia* work together to fix nitrogen. Biofertilizers have their own set of benefits over chemical fertilizers. Biofertilizers are a renewable source of nutrients that help to maintain soil health, supplement chemical fertilizers, replace 20-25 percent of chemical fertilizers, increase grain yield by 10-40%, decompose plant wastes, and balance the soil's C: N ratio. It increases soil texture, structure, and water retention capacity while having no negative impact on plant growth or soil fertility. It also promotes plant growth by secreting growth hormones as well as antifungal and antibiotic-like chemicals. It helps in solubilization and mobilization of nutrients.



Dr. Ashwani Kumar; delivering a talk on Agriculturally Important Microbes and their significances on 12th April, 2022.

Mr. Muneer Ahmad, Research Scholar Department of Zoology, led the practical session, wherein he discussed about vermiwash, its importance and benefits. He also discussed various methods of vermiwash preparation. Later, the students were demonstrated the preparation of vermiwash, after which students prepared the model vermiwash unit.



Mr. Muneer Ahmad demonstrating the preparation of vermiwash unit 12th April, 2022.

Date: 13 April, 2022

Training provider Prof. Shweta Yadav taught identification of maturity of prepared vermicompost and explained harvesting of mature vermicompost at suitable stage tub, container and bait techniques. The vermicompost is mature and ready for harvest when the raw materials, except for a few, notably fragments of woody stem, have totally decomposed. At this time the Vermicomposting materials would have undergone both thermophilic and mesophilic phases of breakdown. The height of the pile would have dropped down to around one-third to one-half of that of the initial pile; and the pile temperature would be close to ambient temperature. Since the organic substrates have become indistinguishable from one another, the vermicompost appears dark brown in colour, crumbly in texture, and smells earthy, similar to that of newly excavated rich soil. It has a pH of around 7.0, is finely granulated and friable, black in colour, and has a scent similar to that of fertile soil. There are macronutrients and micronutrients that are needed for soil-dwelling species such as microbes and insects. After approximately one month, the compost is ready. It is dark, granular, light weight, and humus-rich, with a granular texture. She also taught students how to collect worms using a variety of ways, including the manual method, the trap method, sieving, and the self-harvesting or migratory methods. It was also explained how to troubleshoot problems that arise throughout the vermicomposting process.



Prof. Shweta Yadav; delivering a talk on identification of prepared vermicompost and discussed various techniques used for harvesting the vermicompost on 13th April, 2022.

During the practical session, Dr. Muneer Ahmad Malla demonstrated the production of Vermiwash to the participants. A foliar spray made from the liquid that is collected after water passes through a column of worm activity is extremely effective. It is a collection of excretory products and mucus secretions produced by earthworms, as well as micronutrients derived from organic molecules found in the soil. In the natural environment, they are carried to the leaf, shoots, and other portions of the plants. In the correct collections' conditions, vermiwash is a clear and transparent fluid with a pale-yellow colour. The fundamental principle of Vermiwash preparation is simple. Earthworms create burrows in worm churned soils, which are then used by other organisms. Bacteria abound in these burrows, which are also known as drilospheres, which are found throughout the world. The water that passes through these tunnels washes the nutrients from these burrows to the roots, where they are absorbed by the vegetation. In the production of vermiwash, this concept is utilised to great effect. Vermiwash may be produced by allowing water to seep through the tunnels created by earthworms on a leaf litter and cow dung substrate that can be stored in a plastic container for several weeks. In the Vermicomposting system, water is set to fall into the barrel from a pot that is suspended above it drop by drop. The vermiwash units were installed by the participants using materials that were readily available in campus.



Students installing the vermivash unit on 13th April, 2022.

Date:18 April, 2022

Students visited the Agricultural Research Center, Sagar on Monday, April 18th, where Dr. K.S Yadav lectured about Vermicompost technology. He proceeded over the various sorts of organic materials utilised in vermicomposting. The students also went to their fields, where they observed vegetables like tomato, brinjal, lemon, and other vegetables that were grown with organic manure/vermicompost. Dr. Deepak Mathur responded to the students' questions. He talked about his vermicomposting and organic farming background, and how he and his team are currently working in around 25 states. Dr. Deepak also discussed about Sahyog Bazar, a collaborative online market tool in which he aims to link farmers. He advised the students to promote their organically grown items through internet platforms and social media. Later, the students went to Ratona Dairy Farm, Sagar and saw the integrated approach of vermicompost production where Dr. Gautam Rathore interacted with students.



A view of the practical demonstration of Vermiculture unit Agricultural Research Center, Sagar during field visit on 18th April, 2022.

Date: 19 April, 2022

Dr. Keshav Singh of Gorakhpur University in Gorakhpur gave a talk about using earthworms to control garbage. He emphasized the need of vermicomposting by using agricultural waste to produce it. The green revolution increased agricultural production, but it did so without considering the detrimental environmental implications of artificial fertilisers and pesticides. As a result, there is an urgent need to promote organic farming, which includes vermicomposting. It also has the added benefit of enhancing soil microbial population dynamics. Chemicals must be used less frequently in agriculture since they have an impact on organisms that aren't supposed to be affected. Vermicomposting is a useful method to get rid of waste from dairy cows, poultry, and other animals. While epigeic earthworm species can convert organic waste into vermicompost, the rest of the earthworm species are helpful in soil fertility management. It is thought that they store heavy metals and other contaminants in their bodies, lowering the risk of contamination of agricultural crops. Before introducing earthworms into the system, it is always advised to employ pre-decomposed organic waste for at least 20 days. If you add one litre of water daily, vermicomposting will take about 60 days. Vermicomposting is a simple process that may be carried out by organising committees or non-governmental groups, and one or two persons can easily manufacture vermicompost. Installation of the unit is required at first, but after that, aside from checking water levels, it is no longer necessary to maintain it. It's one of the most efficient ways to find self-employment options. Significant benefits can be obtained by starting with an integrated approach that incorporates poultry, fisheries, and vermicomposting.

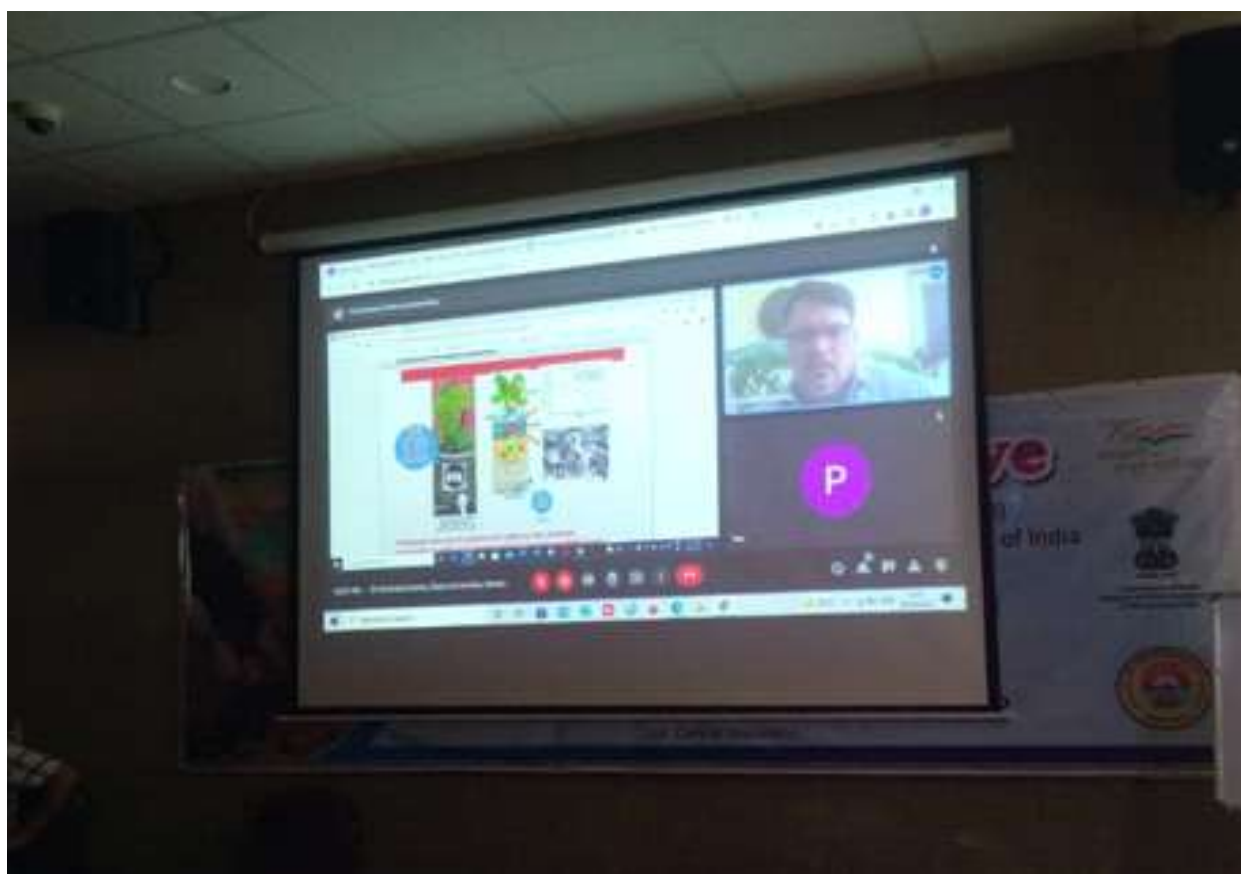
After the theoretical lecture on Tuesday, the students went to see unit of Mr Anil Yadav, Radha Dairy, Patharia Jat, Sagar Mr. Yadav formerly worked as a team leader for a private company in Indore. He left his work in Indore in 2018 to pursue organic farming. With ten cows, he started a dairy farm. From cow dung, he began production of vermicompost manure. He currently provides vermicompost in two states. Mr. Yadav underlined the importance of students preparing more productivity with less money. He underlined the importance of having access to shade and water for vermicomposting. He also provided comparison data on tomato, brinjal, onion, and other vegetables grown with vermicomposting. Both vermicompost manure and regular soil crops were shown to the students.



Student during field visit to vermicomposting unit at Patharia Jat, Sagar; led by Mr. Nishank Sharma on 19th April, 2022.

Date: 20 April, 2022

Dr. Surindra Suthar, Doon University Dehradun gave a talk on Vermicomposting for Solid Waste Management. He discussed the eco-biotechnological process for converting energy-dense, complex organic materials into vermicompost, a stable humus-like product. He further mentioned that it is the aerobic process that takes garbage and turns a portion of it into worm biomass and respiration products, and then expels the partially stabilised product. Furthermore, he presented natural solutions for "waste to wealth conversion," including the importance of water hyacinth (WH), *Lantana camera*, and biochar in vermicomposting. He also mentioned the potential use of WH in bioenergy production, which could solve two problems at once: effective waste weed biomass management and supply of feedstock for bioenergy operations. He also discussed about the importance of biochar in vermicomposting and its role in wastewater treatment. He also talked about composted *Lantana camera* biomass's biopesticidal properties and its potential role in crop pathogen management.



Dr.Surindra Suthar, discussed the importance of vermicomposting and various natural strategies to convert “waste to wealth” on 20th April, 2022.

Prof. Shweta Yadav spoke later in the day about earthworm segregation, storage, packaging, and recycling techniques and procedures. In addition, students completed their Unit 3 assignment.



Prof. Shweta Yadav; discussing about segregation, storage, packaging and recycling of earthworms on 20th April, 2022.

Date: 21 April, 2022

Dr. Gautam Prasad, Department of Commerce, taught Students about the production pricing cost sheet, objectives, features, elements, components, forms, advantages of Cost Sheet. It is a statement, prepared at given intervals of time, which provides information regarding elements of cost incurred in production. It discloses the total cost as well as the cost per unit of the product manufactured during the given period. If it is desired to compare the costing results of a particular period with any of the preceding periods, comparative columns can be provided in the Cost Sheet. The cost sheet is prepared to ascertain cost of product/job/operation or to give quotations or to determine tender price for supply of goods or providing services.



Dr. Gautam Prasad, discussed about the production and pricing with the students on 21st April, 2022

Target marketing, kinds and tactics of segmentation, and the necessity for target marketing were taught by Dr. Shalini Choithrani of the Department of Commerce. The target market is a collection of individuals with similar qualities that the firm recognises as a prospective market for selling items, while the market contains the company's potential purchasers. Market segmentation, market targeting, and positioning are all part of the target marketing process. Undifferentiated marketing, differentiated marketing, focused marketing, and micromarketing are among its tactics. Analyzing target markets include examining target markets, examining competition, determining segmentation criteria, doing research, and monitoring findings. Geographic, demographic, psychographic, and behavioural factors all play a role in segmentation. The necessity of target marketing in designing marketing plans and promotion schemes, the value to enterprises in identifying target audiences and appropriate knowledge of consumers, and the delivery of the right product at the right time in the market were all grounds for its use.



Dr. Shalini Choithrani, discussed Target Market and pricing with the students on 21st April, 2022

Mr Ganesh Gangwani and Mr Roshan Motwani lectured students about the fundamentals of accounting, the requirement for an accounts book, company operations and categorization, knowledge of the Income Tax and the Goods and Services Tax (GST). A short discussion of the business side of online content-based businesses, YouTube, Facebook, and Vermicompost and Farming blogs were also discussed.



Mr Ganesh Gangwani & Mr Roshan Motwani talked about accountancy and use of Social Media to promote business with the students on 21st April, 2022

Date: 22 April, 2022

Dr. Babita Yadav, Department, Business management delivered a lecture on Costing and Pricing of products. She asked the student about the “A” product is the item offered for sale. A product can be a service or an item. It is anything that can be offered to market for satisfying the desire or need of a customer. “A” product is goods or a service that is sold to customers or other businesses. Customers buy a product to meet a need. This means the firm must concentrate on making products that best meet customer requirements. She told that to buy any item in the market, the need of the market has to be understood. Giving examples, she said that like Maruti Suzuki have kept the brand quality better and the price is also kept low. Similarly, Apple has kept high quality high price for their premium brands. In the same Chinese production, they have kept the price and quality both as low. She told that your product should be better quality base at low price to the consumer. If we follow the principle of high quality, high price, then the number of our customers will be limited. She also discussed about various aspects of product costing including manufacturing cost. It includes variable like labour, raw material and other fixed costs like land, building, machinery etc. She also explains the concept of MRP that is maximum retail price and how it is determined by the producers and its significance in marketing. The concept of expenditure and its types also covered in the lecture along with the formula to calculate it.

In the second lecture Dr. Gautam Prasad, Department of Commerce discussed about Ensure that the cost of production, transportation, and marketing, costing and price. To calculate the amount of raw material actually consumed during a given period, you add the opening stock and the amount of material purchased, and deduct the closing stock. $\text{Total cost} = \text{Cost of goods sold} + \text{Selling and distribution overhead}$ in the production process, some units of a product are scheduled to be finished at the end of a period. Such incomplete units are called work-in-progress. While calculating the factory cost of a product unit, it is necessary to adjust for opening and closing stock to arrive at the net factory cost of the product. Generally, the cost of these unfinished units includes direct material, direct expenses, and factory overheads. Besides this, the adjustments for inventories need to be made.



Dr. Babita Yadav discussed about the various aspects of marketing with students on 22nd April, 2022

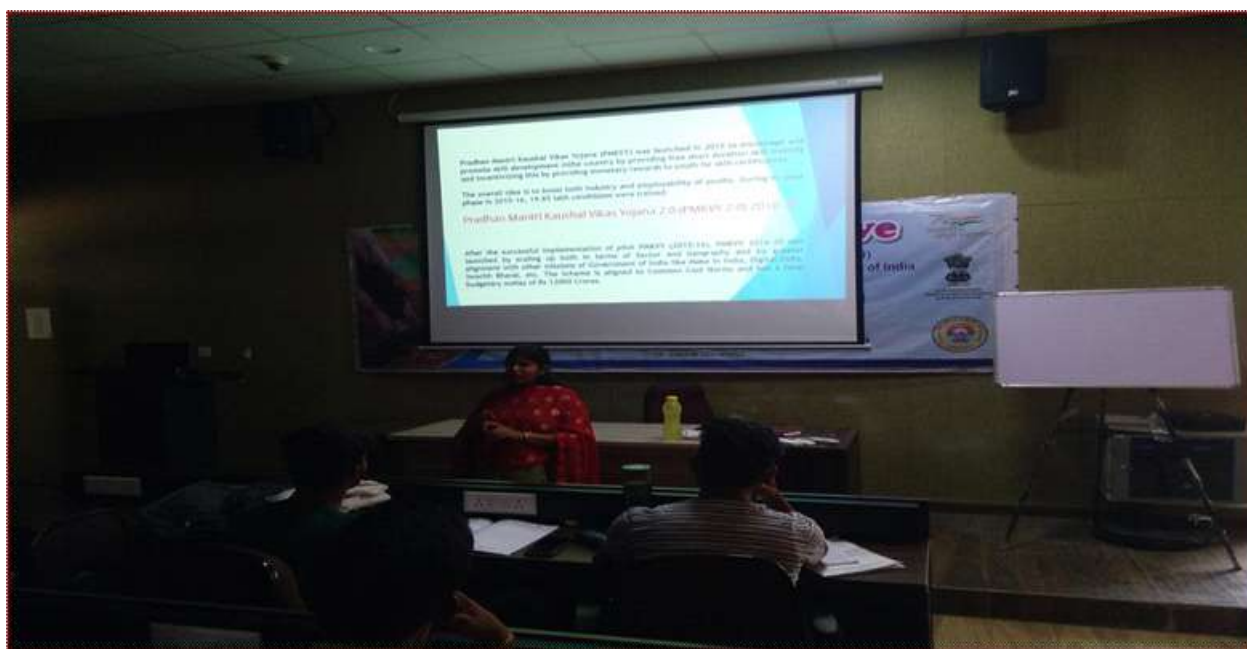
In the end of the day, Ms. Anita Singh, Department of Commerce taught about ledger, cash book, stock register, she said that it is necessary to have an account of annual income and expenditure of any company. This gives us an idea, how much the company produced in a year and earned so much profit.



Ms. Anita Singh, discussing about the maintenance ledger, cash book and stock register on 22nd April, 2022

Date: 23 April, 2022

Dr. Sushma Yadav of the Department of Commerce spoke on Government Subsidies and Small Business Funds. Subsidies are used to keep the cost of products and services low so that customers can afford them, as well as to encourage production and consumption. Subsidies aid in the reduction of prices and the management of inflation, as well as the prevention of long-term industrial loss and the expansion of commodity supply. The government is encouraging the use of organic fertilizers by providing financial assistance through the Paramparagat Krishi Vikas Yojana (PKVY), the Mission Organic Value Chain Development for the North Eastern Region (MOVCDNER), the Mission for Integrated Development of Horticulture etc. The state government would pay subsidies ranging from 30% to 50% on the purchase of agricultural equipment to all eligible farmers under the Madhya Pradesh Kisan Grants Agricultural Equipment Subsidy Scheme. Farmers would get subsidies ranging from 40,000 to 60,000 rupees under this scheme.

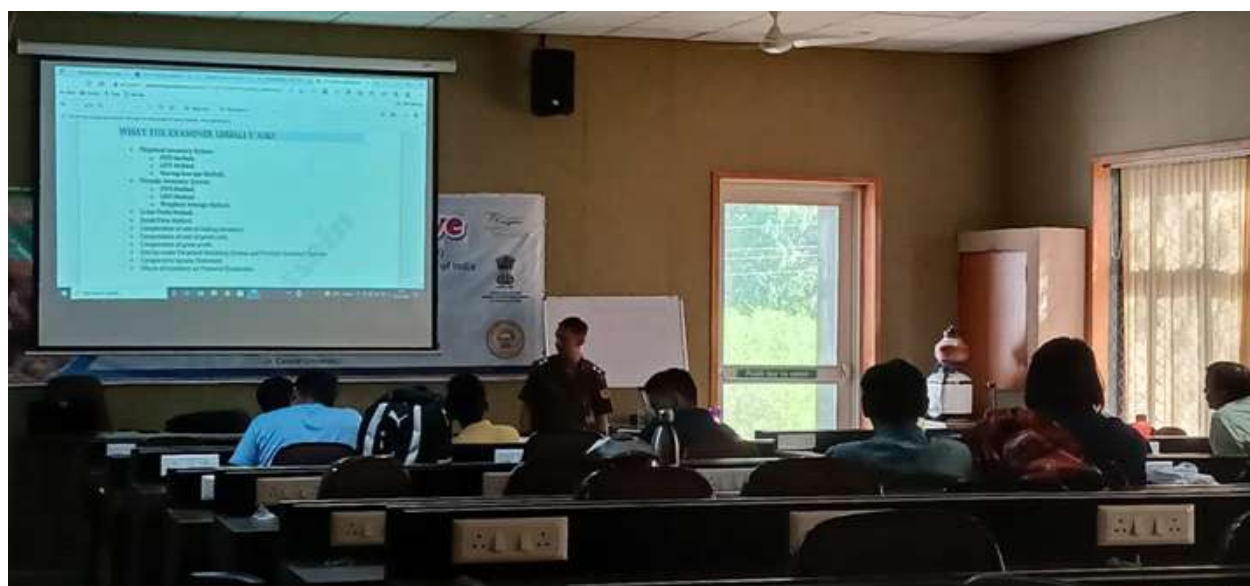


Ms. Sushma Yadav, discussed about the various Govt schemes under PMKV3.0 on 23rd April, 2022

Record Management was taught by Dr. Shalini Chothrani of the Department of Commerce. The lecture began with a definition of the word "record." The term "record" refers to a group of papers that have a certain function. Physical, electronic, and other sorts of records exist. For efficient record management, an organization must create, utilize, and dispose of records. Creation, usage, preservation, maintenance, and disposal are all part of the record management process. These steps assist the organization in determining which records should be kept and which should be discarded in order to preserve efficiency. The necessity of record management was stressed as a way to save money, reduce mistakes, and compete. It was also highlighted that well-known record management systems such as Click up, Teamwork and others provide services in these areas. The significance of the Electronic Record System was also discussed.

Different sorts and styles of businesses were explored with the students. Their advantages and disadvantages were thoroughly explored, and questions were answered. This class ended with a discussion and student questions. They were educated in depth about several content-based enterprises in the Business Practical Part.

Dr. Gautam Prasad, Department of Commerce, spoke on the topic “History of Agricultural Marketing Regulation” He started by saying that Agriculture is one of the most critical sectors of the Indian economy. Growth and development of agriculture and allied sector directly affect well-being of people at large, rural prosperity and employment; and it forms an important resource base for a number of agro-based industries and agro-services. While the total production and productivity is being constantly augmented, it is essential to provide the farming community with better marketing facilities and suitable infrastructures in order to enable them in getting remunerative prices for their produce. Value addition in agriculture holds huge potential for enhancing the living standard of majority of the people.



Dr. Gautam Prasad, discussed about the History of Agricultural Marketing Regulation on 25th April, 2022

Date: 26 April, 2022

Dr. Babita Yadav, Department of Business Management, delivered a talk on the topic entitled “Track Information Related to Wholesale and Retail Price of the Produce, Wholesaler and Retailer”. With proper distribution channel, a product can easily move from the place of producer to the end user or customers. Wholesalers buy goods in bulk from the manufacturer or producer of different goods at lower price and sell it to retailers in smaller quantities as per their demand. Whereas the Retailers purchase goods directly from the wholesalers and sell it to customers at higher price. There are different types of Wholesalers based on functions, product lines and geographical areas. Retailers considered as important link between manufacturer and customers. There are various pros and cons of Wholesaler and Retailers like for wholesale business more capital is required, risk is high and requirement of warehouse for storage of bulk amount of produced goods but they don't need product promotion as in case of Retailers. Selling is a complex and challenging phenomenon and thus every

Retailer strive hard to sell their products to their end users. Normally wholesale price of products is quite lower than the retail price and thus retailer enjoys greater profit margins as compare to business of wholesale. As such there is no standard formula to calculate wholesale pricing but cost of produce need to be checked as well as competitors pricing strategy while deciding on wholesale pricing of various goods. Thus, all three means producers, wholesalers and retailers perform a vital link in the distribution channel and contribute to its operation.



A view of the theory class led by Dr. Babita Yadav on 25th April,2022.

Ms Ankita Yadav discussed cash accounts and cash book in the session. A cash book is a subsidiary ledger in which all cash receipt and cash payment transactions are stored. It is the primary repository of cash-related information for a business. The cash book is commonly subdivided into a cash receipts and a cash disbursement when there are a large number of transactions. The information in a cash book is entered in chronological order, which makes it easier to find transactions at a later date. There are three types of cash books maintained: single column cash book in which only cash column is maintained, double column cash book in which cash and discount column is maintained and triple column cash book in which cash, discount and bank column is maintained. A petty cash book is maintained to record small expenses such as postage, stationery, and telegrams. A separate column is used for each type of expenditure.

Date: 25 April, 2022

Dr. KS Tiwari, former Regional Director of Indira Gandhi Nehru Open University in Bhopal, explained a variety of rural self-employment opportunities. Self-employment is emphasised in the new education policy, and low-interest loans are offered through many state government schemes. The Department of Agriculture offers vermicomposting loans. It is also available through the National Bank for Agriculture and Rural Development (NABARD) scheme.

Dr. Deepak Mathur, Director of Anvarat Samvad Society, Sagar lectured to students about rural product marketing and how everything has its own market. Your product will almost likely sell if you market it appropriately. First and foremost, you must learn to manage your time effectively. Increase your productivity by completing more tasks in less time. Before moving further, make a schedule for the full day. Make a personal goal for yourself. Make every effort to meet it.



Dr. KS Tiwari and Dr. Deepak Mathur discussed about self-employment opportunities in Rural Sector on 26th April, 2022

Dr Gautam Prasad, Dr Harisingh Gour Vishwavidyalaya, Sagar, taught inventory valuation in the second session. Inventory valuation can be done in two ways. A perpetual inventory system is the first, and a periodic inventory system, often known as a physical inventory system, is the second. The perpetual inventory system employs the first in, first out (FIFO), last in, first out (LIFO), and moving average approaches. The three inventory valuation methods used in the periodic inventory system are identical to those used in the perpetual inventory system. The gross profit approach of estimating inventories was also taught for interim accounting periods. The retail pricing approach was also taught for assessing inventory in retail operations without a complete physical count of inventory items. All of the above strategies was explored both theoretically and practically.



Dr. Gautam Prasad taught Inventory valuation on 26th April, 2022

Mr. Ganesh Gangwani and Mr. Roshan Motwani, Dr.Harisingh Gour Vishwavidyalaya, Sagar, taught students how to make money by creating and sharing content on social media platforms. They demonstrated how to build a YouTube channel, track metrics, keep the channel updated, and apply for funding. They also demonstrated how to set up a Facebook page and publish content. Students were also taught how to use Word Press to construct their own blog or website, upload articles, and share their knowledge with others.



Mr. Ganesh Gangwani and Mr. Roshan Motwani, discussed the Use of Social Media platforms for Knowledge on 26th April, 2022

Date: 27 April, 2022

Quality Management was discussed by Dr. Shalini Choithrani, Department of Commerce, Dr.Harisingh Gour Vishwavidyalaya, Sagar. The definition of quality, the notion of quality management, its important aspects, the quality management method, its principles, and the necessity of quality management for an organisation were all covered. Quality management guarantees that an organization's goods are continually improved in order to maintain a targeted level of quality. Integrity, honesty, and teamwork with proper leadership are among its components. All efforts in quality management are focused on overall customer satisfaction in order to meet an organization's goals.



Dr. Shalini Choithrani taught Quality Management on 27th April, 2022

Account management was discussed by Dr. Sushma Yadav, Dr. Harisingh Gour Vishwavidyalaya, Sagar. After the sale has been completed, account management begins. It is the day-to-day administration of client accounts in order to keep customers involved in maintaining a positive business relationship. The ability of a corporation to form and maintain relationships is critical to its success. Understanding the benefits and functions of account management will aid the organisation in increasing client satisfaction and revenue. Selling to an existing customer has a success rate of 60–70%, while selling to a new prospect has a success rate of 5–20%. Existing customers are 50% more likely than new consumers to try new things and spend 31% more. Maintaining a company's relationships with recurrent clients is less expensive and more profitable than acquiring new customers in the realm of sales.



Glimpses of Dr. Sushma Yadav, while discussing Account Management on 27th April, 2022

Ms. Ankita Rajput, Dr. Harisingh Gour Vishwavidyalaya in Sagar taught Ledger Account, Double Cash Book Entry, and other topics. She urged that we should write down even the smallest expense otherwise, we won't be able to recall the future budget amount. To begin, open the organization's account in the Ledger, which is named General Account, and there is an account for each month. At the administrative office, the fiscal year runs from April 1st to March 31st. After you've set up a basic account. Prepare the items in the latch in accordance with your company's needs. Construction, repairs, credit accounts, raw material purchases, and so forth. Make a monthly ledger entry.



Ms. Ankita Rajput discussing about Ledger account and Double Cash Book on 27th April, 2022

Date: 28 April, 2022

"Batch costing" was discussed by Dr. Gautam Prasad, Department of Commerce, Dr. Harisingh Gour Vishwavidyalaya, Sagar. He began by explaining that job costing is nothing more than a modified version of job costing in which the cost of each batch of production is computed. This approach of costing is appropriate for manufacturing units that produce things in fixed quantities. Because products are produced in lots of 500, 1,000, or any other number, the batch costing approach is also known as lot costing. In the pharmaceutical sector, batch costing is often used. It's also used in ready-to-wear clothing factories, watch factories, and radio, television, and other item manufacturing facilities. Batch costing is a type of task costing with a few variations. While job costing is concerned with determining the cost of completing works to customer specifications, batch costing is concerned with a set of identical products created for the firm's own stock. Batch costing follows a similar costing process to job costing. The main difference is that instead of a job, a batch becomes the cost unit. Each batch (or collection of identical products) is assigned a serial number (known as a batch number) for costing purposes, similar to a work number. The numerous cost items are presented in the form of a batch cost sheet.



Dr. Gautam Prasad, while delivering a lecture on Batch Costing on 28th April, 2022.

Mr. Ganesh Gangwani and Mr. Roshan Motwani, Dr. Harisingh Gour Vishwavidyalaya, Sagar, taught students how to promote a product. They answered students' questions and went over Blogging, WordPress, and how to write on a website and get visitors in detail. Finally, students learned about the characteristics of a "Successful Entrepreneur" as well as the different sorts of entrepreneurship.



Dr. Ganesh Gangwani interacting with students on 28th April, 2022.

Dr. Babita Yadav of the Department of Business Management, Dr. Harisingh Gour Vishwavidyalaya, Sagar lectured on "Identifying Appropriate Marketing Channels for the Produce Considering Requirements and Constraints." During her presentation, she emphasised how product distribution is a key part of a company's marketing. Market concentration, order size, product line, financial resources, and geography are all elements that influence the length of the distribution channel. Wholesalers, retailers, and agents are all involved in the distribution channel and ensure that items and services are delivered on time, in the proper quantity, and at the right location. Zero order, first order, second order, and multi-channel distribution are all examples of distribution channels. The choice of a marketing channel is influenced by a variety of elements such as the type of product, the company's goals, the costing factor, the availability of intermediaries, and so on. Aside from its particular position in marketing, the distribution channel has a number of obstacles, including insufficient inventory, storage and transportation issues, and the changing nature of customer behaviour. Despite these obstacles, distribution plays a critical part in marketing, and the effectiveness of the distribution channel influences customer satisfaction to a large extent.



Dr. Babita Yadav, discussing Marketing Channels, Requirements and Constraints on 28th April, 2022.

Date: 29 April, 2022

Dr. Rajesh Singh Yadav, Department of Criminology and Forensic Science, Dr. Harisingh Gour Vishwavidyalaya, Sagar delivered a lecture on the topic entitled “Maintenance of Health and Safety at the Workplace”. Dr. Yadav started by quoting a famous statement on health “The Superfund Legislation may prove to be as far-reaching and important as any accomplishment of any administration. The reduction of threat to health and the safety from thousands of toxic waste sites will continue to be a serious issue.” During his lecture Dr. Yadav discussed various challenges at workplace and the ways to overcome these challenges. He also mentioned that there are health and safety issues familiar to every business, may be small or large: some of these are the temperature, light and air conditioning, harmful surroundings and hazardous substances, like pesticides, workstation health and safety, like computers and other display screen equipment (DSE), manual handling, noise and sound exposure, slips, trips and falls, handling heavy machinery, tools and equipment. It could be these hazards, or something more specific to your company, that creates health and safety issues if they go unmanaged. He talked about chemical toxicity and its adverse effects on living organisms or in biological systems. Besides, he discussed various factors associated with chemical toxicity such as the dose, route of exposure, the species, age, sex and environment. He also mentioned that personal protective equipment's (apron, gloves, face mask, and goggles) during the pesticide application in agriculture field and public health programs must be practiced.



Dr. Rajesh Yadav delivering a lecture on Maintenance of Health and Safety at workplaces on 30th April, 2022.

Dr. Bhupendra Patel, Medical officer Dr. Harisingh Gour Vishwavidyalaya, Sagar gave health related information to the students, he discussed the ways and protocols to safeguard both yourself and the employees at work place. He also talked about time management and its importance and benefits. He stressed the students to make a habit of waking up early in the morning will greatly affect routine, which in turn will benefit in terms of health. He also focused on the recommended everyday walks. Besides, he also told the students to manage time to perform daily exercise and workout. Along with this, set the time of meal and snack as well. Have a light meal. Don't stay hungry there. Staying on an empty stomach will also be a problem.



A view of the theory class led by Dr. Bhupendra Patel, wherein he discussed about Safe Handling and Management of Working Equipments on 30th April, 2022.

Dr. Sarvendra Yadav, Department of Anthropology, Dr. Harisingh Gour Vishwavidyalaya, Sagar delivered a talk on “Manual handling jobs, Equipment and material safety, safe waste disposal in vermicomposting”. During the lecture Dr. Yadav discussed about the risk assessment prior to performing manual handling jobs, and work according to recommended safety practices. He also talked about the safe usage of equipment and materials and their safe storage after use. Besides he also, discussed about the safe and correct disposal of waste materials in well designated areas. Manual handling jobs are an essential part of vermicomposting, but they can also be extremely dangerous if they are not managed correctly by everyone involved in the process. The lifting and carrying of heavy objects can seem straightforward enough on paper, but in reality, there are all sorts of things that can go wrong, potentially resulting in serious injury and possible legal consequences. In the end, he discussed about labor laws and mentioned that these laws ensure the responsibility of business owners to guarantee that adequate safety in place, mandate to exercise maximum constraints to reduce the risk of manual handling accidents, injuries related to lifting or carrying heavy loads can also open your business up to potential lawsuits and fines, which can be exorbitant.

He also talked about the disposal of biodegradable waste. The part of the garbage which can rot in nature to form harmless substances is called biodegradable (plants and animal waste). Different biodegradable waste can be dumped in a pit. Here, it can be allowed to decompose after which the garbage will convert into useful manure by a process known as composting. The process of decomposition may take around 2 to 3 months. To make the process fast, red worms may be used for the production of manure and this process is known as vermicomposting. Vermicompost is the high-quality manure and improves the soil quality and fertility.



Glimpses of the theory class led by Dr. Sarvendra Yadav, wherein he discussed about Safe Handling and Management of Working Equipments on 30th April, 2022.

Date: 30 April, 2022

Dr. Kiran Maheshwari, Medical Officer, Dr. Harisingh Gour Vishwavidyalaya, Sagar emphasized the need for first aid at workplace. She taught various pulse points like carotid, brachial, radial, and femoral. She also discussed the importance of the respiratory system. First aid is administered to save lives, prevent the disease from worsening, and facilitate recovery. It is everyone's moral responsibility to deliver the best possible first aid. She also discussed the duties of a first responders. The number 108,112 is frequently used to call an ambulance. HIV and hepatitis are two prevalent infections that are spread by blood. Always wear gloves to prevent illness transmission through the bloodstream. If the patient does not respond to the stimuli, cardiopulmonary resuscitation (CPR) is done. Before performing CPR, make sure the airways are clear by tilting the head and lowering the chin. Brain hemorrhage can occur if blood does not reach to brain for more than 3-5 minutes. She demonstrated how to apply dressings and bandages. Apply direct pressure, keep the dressing in place, and limit movement. The fume inhalation is caused by carbon monoxide, smoke, and solvents, which causes unconsciousness and death. Anaphylactic shock is an allergic response caused by bites from bees, snakes, and scorpions. The first step was to avoid any movement and clean with soap and water. Never apply ice to a burn injury it should be exposed to running water for at least 10-15 minutes.



Glimpses of First Aid demonstration by Dr Kiran Maheshwari, Medical officer on 30th April, 2022.

Dr Umesh Patil, Dept of Pharmaceutical Sciences, Dr. Harisingh Gour Vishwavidyalaya, Sagar taught about the basics of health management. In our society everything is based on the theory of quicker, faster, and cheaper and sadly that has extended to our food and general health as well. This mindset has led to a society where cancer and other diseases run rampant. Two thirds of the population are overweight or obese and chronic degenerative diseases largely caused by a poor diet and lifestyle are causing people to age prematurely. It is interesting to note that the cross section of a Carrot looks like the human eye. And science now shows carrots greatly enhance blood flow to the eyes and aid in the general function of the eyes. Avocadoes target the health and function of the womb and cervix of the female; they look just like these organs. Avocadoes help women balance hormones, shed unwanted birth weight, and deter cervical cancers. It takes exactly nine months to grow an avocado from blossom to ripened fruit. A Walnut looks like a little brain, a left and right hemisphere cerebellum. Tomatoes are red and have four chambers, just like the human heart. Science is now stating that tomato-lovers may be more likely to reduce the risk of serious heart disease. Lycopene, the antioxidant which gives tomatoes their dark red color, also helps remove free radicals from the body. Our lungs are made up of branches of ever-smaller airways that finish up with

tiny bunches of tissue called alveoli. These structures, which resemble bunches of Grapes, allow oxygen to pass from the lungs to the blood stream. A diet high in fresh fruit, such as grapes, has been shown to reduce the risk of lung cancer and emphysema. Grape seeds also contain a chemical called proanthocyanidin, which appears to reduce the severity of asthma triggered by allergy.



Dr Umesh Patil, delivered lecture on Health Management on 30th April, 2022.

Dr. Rajesh Singh Yadav, Department of Forensic Science and Criminology, Dr. Harisingh Gour Vishwavidyalaya, Sagar delivered a lecture on Maintaining Health and Safety at the Workplace. He discussed about common injuries that need emergency treatment and information about how to deal with them including bleeding, burns, choking, drowning, heart attack, electric shock, drowning, poisoning, snakebite and scorpion bites. He discussed about the management of snakebite, scorpion bites poisoning cases and epileptic fits if occurs at the workplace. Participants actively interacted with him and learnt about the protective measures that need to be adopted at the workplace.

Date 1 May-12 May, 2022

Students Developed their own Vermicompost unit at DHSGU, Sagar



Assessment/ Examination of the course

On June 1, 2022, the Assessment team of the Pradhan Mantri Kaushal Vikas Yojana (PMKVY), National Skill Development Corporation, New Delhi conducted the practical and theory examination. Eleven candidates with a 70% attendance on the Adhar Card Enabled Biometric System were allowed to take the final exam.

1: Name of Students allowed for examination

S.No.	Name of Examinee	CAN_ID	Biometrics ID
01	<u>Shivank Prajapat</u>	CAN_16392950	24137561
02	<u>Harsh Bediya</u>	CAN_16323086	44624733
03	<u>Jitendra Singh Lodhi</u>	CAN_16357990	57551248
04	<u>Kailash Soni</u>	CAN_16432339	92518552
05	<u>Raja Patel</u>	CAN_16432496	95581251
06	<u>Rakesh Kumar Chachondiya</u>	CAN_16430395	48225746
07	<u>Nitesh Kushwaha</u>	CAN_16355773	11907740
08	<u>Rakesh Raikwar</u>	CAN_16430527	86890699
09	<u>Umakant</u>	CAN_16336564	71489096
10	<u>Aman Navak</u>	CAN_16328168	46046651
11	<u>Ronak Navak</u>	CAN_16327593	46116759



View of Examination/Assessment of students by PMKVY Assessments team on 1st June, 2022.

Summary of the Programme

The University launched a course for the job role of Vermicompost Producer under the Skill Hub Initiative on March 14, 2022, and it was completed on April 30, 2022. For the participants to take the final assessment/examination, they needed to complete 200 hours of training (90 theory and 110 practical hours) and have 70% attendance on the Adhar Enabled Biometric System. The major goal was to build skills in those under 45 years old who are either school dropouts or have left schooling for other reasons. The participants were taught several elements of vermicomposting in the form of theoretical and practical sessions over the period of 45 days. Students were also taught fundamentals of entrepreneurship, accounting, management, and hygiene management. Aside from that, the students were taken to several field places to connect with various vermi-entrepreneurs. From March 14 to April 30, 2022, a total of 33 faculty members and research experts, including 18 internal and 15 external were involved to teach theory and practical sessions. During the training, the students visited 7 different fields to have hands on experience of the technology. 11 Adhar Card Enabled Biometric System students with a 70 percent attendance were allowed to take the final exam on June 1, 2022. This was done by the PMKVY Assessment team, which followed the exam pattern set by the Agriculture Council of India.

Outcome of the Course

The students that participated in this programme came from rural locations and had no experience with Vermi technology. Just after completing the course, Mr. Aman and Rounak Nayak established a large-scale Vermicompost Unit at Rajakhedi Road, Makronia, Sagar, and Mr. Kailash Soni has begun construction of a Verimculture Unit in Bada Bazar, Sagar. While, Mr. Jetendra Lodi of Pathariya, Sagar, Mr. Rakesh Kumar of Bina, and Rakesh Chachondiya of Maharajpur have started a small-scale vermicomposting unit. The students' enthusiasm indicates that they intend to pursue it as a career path in the future.



Large Scale Vermiculture Unit established by Mr Aman Nayak; ID 46046651; Mobile No. 898909331 and Mr Rounak Nayak; ID 446116759; Mobile No. 9406931711



Small Scale Vermiculture Unit established by Mr Kailash Soni, ID 92518552; Mobile 9300326311

2: Details of students registered for Job role: Vermicompost Producer at Dr. Harisingh Gour Vishwavidyalaya, Sagar, under Skill Hub Initiative Scheme

S. No	Candidate ID	Candidate Name	Source of Mobilisation Role	Father's Name	Mobile No.
1.	CAN_16531374	Chandrabhan Ahirwar	TC163579	Shiv Prasad	7067849628
2.	CAN_16525712	Gaurav Yadav	TC163579	Aakash Yadav	9171822989
3.	CAN_16524839	Rakesh Singh Dangi	TC163579	Kuwersingh	8819067404
4.	CAN_16433104	Ashish Ahirwar	TC163579	Ramnath	8305275394
5.	CAN_16432594	Anuj Rajak	TC163579	Mukesh Rajak	9826507989
6.	CAN_16432496	Raja Patel	TC163579	Jugal Kishore	7909773963
7.	CAN_16432339	Kailash Soni	TC163579	Sectaram Soni	9300396311
8.	CAN_16432277	Yogeshwar Rajpoot	TC163579	Lakhan Singh Rajpoot	9340863613
9.	CAN_16432230	Pratik Mishra	TC163579	Kailash	9301199352
10.	CAN_16430527	Rakesh Raikwar	TC163579	Komal Prasad Raikwar	8871145789
11.	CAN_16430485	Kartik Yadav	TC163579	Bharat Singh Yadav	6232630113
12.	CAN_16430466	Raghvendra Singh Yadav	TC163579	Hazari Lal Yadav	8959713416
13.	CAN_16430422	Pradeep Yadav	TC163579	Ghanshyam Yadav	6264300155
14.	CAN_16430409	Dharmesh Patel	TC163579	Dalchand	6267849769
15.	CAN_16430395	Rakesh Kumar Chanchoundiya	TC163579	Roop Narayan	8889977020
16.	CAN_16400955	Pradeep Patel	TC163579	Pritam Patel	6263888580
17.	CAN_16399388	Jitendra Kumar Prajapati	TC163579	Santosh Prajapati	6263196206
18.	CAN_16398498	Mahesh Patel	TC163579	Tulshiram Patel	8450816859
19.	CAN_16392950	Shivank Prajapati	TC163579	Damodar	3770241375
20.	CAN_16357990	Jitendra Singh Lodhi	TC163579	Ramshanakar Lodhi	9755046033
21.	CAN_16357822	Ramanuj Tiwari	TC163579	Rashik	6266643515
22.	CAN_16357783	Aditya Yadav	TC163579	Ragvendra Yadav	8839272166
23.	CAN_16355773	Neetesh Kushwaha	TC163579	Hukum	7869246382
24.	CAN_16336564	Umakant	TC163579	Chandrashekhar	7489427336
25.	CAN_16333425	Roshan Ahirwar	TC163579	Dhansingh Ahirwar	9131867638
26.	CAN_16328168	Aman Nayak	TC163579	Ajit Nayak	8989093311
27.	CAN_16327593	Rounak Nayak	TC163579	Ajit Nayak	8956461167
28.	CAN_16323086	Harsh Bediya	TC163579	Jankiraman Bediya	9399159983
29.	CAN_16315108	Bharat Raikwar	TC163579	Ramdayal Raikwar	7692989630
30.	CAN_16311478	Govardhan Raikwar	TC163579	Param Lal Raikwar	9589266675
31.	CAN_16284452	Sharad Ahirwar	TC163579	Sarju Prasad	7000651527
32.	CAN_16255267	Arpit Nayak	TC163579	Rakesh Nayak	7987181873
33.	CAN_16235550	Rohit Lodhi	TC163579	Jahar Singh Lodhi	8719086950

Media Coverage



A snap shot of the news about the Job role: Vermicompost Producer Dated 16th March 2022;
Page No.02 (Courtesy: Aacharan Hindi News)



News report; Dated: 16th March 2022; Page No.01 (Courtesy: Dainik Jagran Hindi)



Date: 16th March, 2022; Nav Dunia Hindi News; Paper Page 02



Skill Hub Initiative

Pradhan Mantri Kaushal Vikas Yojana (PMKVY 3.0)
Ministry of Skill Development & Entrepreneurship, Government of India

Job Role: Vermicompost Producer

(14 March 2022 - 30 April 2022)

Community College

Dr. Harisingh Gour Vishwavidyalaya, Sagar, MP
(A Central University)

Date	Time	Course	Instructor
14.03.2022	11.00AM - 4.00 PM	Orientation Records uploading	Prof. Shweta Yadav and Community College staff
15.03.2022	12.00AM–01.30PM	Technical Commencement	Chief Guest Mrs. Shriya Jain Chief Executive Officer, Cantonment Board Prof. Neelima Gupta Hon'ble Vice-Chancellor, DHS U, Sagar
	01.30PM –2.30 PM (1 hr Theory)	Unit-1: Introduction (Bridge Module)	Shri R m Sewak Kushwah Vermie trepreneur
	2.30 PM - 4.30 PM (2 hrs Theory)	Unit-1: Introduction (Bridge Module)	Prof. Shweta Yadav DHSGU, Sagar
	4.30 PM - 5.30 PM (1 hr Theory)	Unit-1: Introduction (Bridge Module)	Shri Anil Yadav Vermientrepreneur
	5.30 PM - 6.30 PM (1 hr Theory)	Unit-1: Introduction (Bridge Module)	Prof. Shweta Yadav DHSGU, Sagar
16.03.2022	11.00 AM - 1.0 PM (2 hrs Theory)	- Occupational health & safety requirements. - Recognize the hazardous substance & precautions. - How to use tools. - Check the tools conditions.	Prof. Shweta Yadav DHSGU, Sagar

	1.30 PM - 5.30 PM (4 hrs Practical)	Practical (Earthworm structure)	Ms. Nalini Tiwari DHSGU, Sagar
17.03.2022	11:00 AM - 5:00 PM (6 hrs Practical)	Field visit	Mr. Nishank Sharma DHSGU, Sagar
21.03.2022	11.00 AM - 1.00 PM (2 hrs Theory)	• Select the appropriate location. • Ensure location is close to the dairy farms. • Ensure water availability near the location	Mr. Muneer Malla DHSGU, Sagar
	1.30 PM - 5.30 PM (4 hrs Practical)	Practical (Collection of epigeic earthworms)	Prof. Shweta Yadav DHSGU, Sagar
23.03.2022	11.00 AM - 1.00 PM (2 hrs Theory)	• Labour availability. • Selection of the appropriate methods according the location, water and labour availability. • Tools, accessories and construction materials for selected vermicompost method.	Prof. Shweta Yadav DHSGU, Sagar
	1.30 PM - 5.30 PM (4 hrs Practical)	Practical (Identification of Vermicomposting worm)	Ms. Nalini Tiwari DHSGU, Sagar
24.03.2022	11.00 AM - 1.00 PM (2 hrs Theory)	• Identify shady area for vermicompost unit. • Instruction for workers to construct the Unit. • Instruction for Vermibed preparation.	Mr. Muneer Malla DHSGU, Sagar
	1.30 PM - 5.30 PM (4 hrs Practical)	Practical (Anatomy of Vermicomposting worm)	Ms. Nalini Tiwari DHSGU, Sagar
25.03.2022	11.00 AM - 12.00 PM (1hr Theory)	• Instruction for filling bottom area of vermicompost unit. • Selection of appropriate raw material for vermibed.	Dr. Tunira Bhaduria Feroze Gandhi College, Raibareilly, UP (Virtual)
	12.00 AM - 1.00 PM (1hr Theory)	• Identification of biodegradable and non - biodegradable materials. • Selection of appropriate organic material for making vermicompost heap.	Prof. Shweta Yadav DHSGU, Sagar

	1.30 PM - 5.30 PM (4 hrs Practical)	Practical	Ms. Kiran Singh DHSGU, Sagar
26.03.2022	11:00 AM - 5:30 PM (6 hrs Practical)	Practical Calculation of ratio of Mature: young: cocoon	Mr. Nishank Sharma DHSGU, Sagar and Ms. Kiran Singh DHSGU, Sagar
28.03.2022	11.00 AM - 5.00 PM (6 hrs Theory) • Ensure continuous supply of food material for earthworms. • Ensure that organic material shredded into small pieces. • Transfer all the organic waste into vermicompost unit. • Ensure heap is maintained as standard requirement. • Materials for top layer covering of vermicompost unit.	Field visit	Mr. Nishank Sharma DHSGU, Sagar
29.03.2022	11.00 AM - 12.30 PM (1.5 hrs Theory)	Management of nutrients in the soil ecosystem.	Dr. C. P. Upadhyaya DHSGU, Sagar
	12.30 AM - 2.30 PM (2 hrs Theory)	• Check the decomposition process in Vermibeds. • Maintain the appropriate Moisture level in vermibeds. • Leave the work area in a safe condition in line with environmental health and safety.	Prof. Shweta Yadav DHSGU, Sagar
	3.00 PM - 5.00 PM (2 hrs Practical)	Practical activities (Inoculation of earthworm)	Ms. Kiran Singh DHSGU, Sagar
30.03.2022	11.00 AM - 12.00 PM (1hr Theory)	Vermicompost-health booster to productive soil	Prof. Radha D. Kale University of Agricultural Sciences, Bangalore (Virtual)

	12.00 PM - 1.00 PM (1hr Theory)	• Selection of appropriate species of earthworms • accurate quantity and proportionate of earthworms' species • Pre-decomposition of organic wastes. • Distribution of earthworms on vermibeds. • Ensure appropriate moisture level of vermibeds.	Ms. Nalini Tiwari DHSGU, Sagar
	1.30 PM - 5.30 PM (4 hrs Practical)	Practical (Packing and sieving of compost)	Mr. Nishank Sharma DHSGU, Sagar & Ms. Pooja Tiwari DHSGU, Sagar
31.03.2022	11.00 AM - 1.00 PM (2 hrs Theory)	• Ensure proper aeration in vermicast. • Ensure the heap is properly covered with appropriate materials. • Protection of Vermibeds against the adverse conditions of weather. • Ensure that earthworms properly feed decomposed material. • Make the appropriate heap according to the good vermicompost practice.	Ms. Nalini Tiwari DHSGU, Sagar
	1.30 PM - 5.30 PM (4 hrs Practical)	Practical (Preparation of vermiwash)	Mr. Muneer Malla DHSGU, Sagar
01.04.2022	11.00 AM - 1.00 PM (2 hrs Theory)	Recent Aspects in vermitechology	Dr. Jaswinder Singh Khalsa College Amritsar, Punjab, India (Virtual)
	1.30 PM - 5.30 PM (4 hrs Practical)	Practical (Preparation of vermibed)	Mr. Nishank Sharma DHSGU, Sagar

02.04.2022	11.00 AM - 1.00 PM (2 hrs Theory)	- Check the correct raw material ratio. - Verify the quality and appropriate condition of cattle dung.	Prof. Adarsh Pal Vig Guru Nanak Dev University, Amritsar, Punjab (Virtual)
	1.30 PM - 5.30 PM (4 hrs Practical)	Practical (Planting with compost)	Mr. Nishank Sharma DHSGU, Sagar
04.04.2022	11.00 AM - 1.00 PM (2 hrs Theory)	- Check the correct raw material ratio. - Verify the quality and appropriate condition of cattle dung.	Dr. Ashish Tripathi , Senior Scientist, Jawaharlal Nehru Krishi Vishwa Vidyalaya (JNKVV),
	1.30 PM - 5.30 PM (4 hrs Practical)	Practical (Planting with compost)	Mr. Nishank Sharma DHSGU, Sagar
05.04.2022	11.00 AM - 12.00 PM (1hr Theory)	Environmental Contaminants and their effects on Earthworm Ecology and reproduction	Dr. S.SHundal Dept. of Zoology Punjab Agriculture University, Ludhiana
	12.00 AM - 01.00 PM (1hr Theory)	- Check that heap is allowed to required time period. - Maintain the temperature and moisture content on heap.	Mr. Muneer Malla DHSGU, Sagar
06.04.2022	1.30 PM - 5.30 PM (4 hrs Practical)	Practical (Measurement of pH)	Mr. Samrendra Singh DHSGU, Sagar
	11.00 AM - 1.00 PM (2 hrs Theory)	- Allow excess water to drain from vermicompost unit. - Collect the nutrient rich vermiwash. - Use appropriate method to aerate the decomposed material.	Mr. Muneer Malla DHSGU, Sagar)
06.04.2022	1.30 PM - 5.30 PM (4 hrs practical)	Practical (Measurement of moisture)	Mr. Samrendra Singh DHSGU, Sagar

07.04.2022	12.00 AM - 02.00 PM (2 hrs Theory)	• Appropriate methods to protect earthworms from various animals. Use insecticides to protect worms withinsects. • Establish favourable environment condition during the vermicompost process against disease such as 'sour crop'. • Leave the work area in a safe condition and in accordance with environmental health & safety.	Mr. Muneer Malla DHSGU, Sagar)
	2.30 PM - 4.30 PM (2 hrs practical)	Practical (Microbial estimation in vermicompost)	Mr. Samrendra Singh DHSGU, Sagar
08.04.2022	11.00 AM - 12.00 PM (1hr Theory)	Management of flower waste by vermicomposting	Prof. O. P. Agarwal Jiwaji University, Gwalior
	12.00 AM - 01.00 PM (1 hr Theory)	Obtain tools and materials needed in carrying out harvesting procedure.	Ms. Nalini Tiwari DHSGU, Sagar
	1.30 PM - 5.30 PM (4 hrs practical)	Practical (Measurement of Organic carbon)	Ms. Kiran Singh DHSGU, Sagar
11.04.2022	11.00 AM - 12.00 PM (1hr Theory)	Nutrient profile of Vermicompost andtheir dependence on Organic waste.	Prof. Vinod Kumar Garg Central University of Punjab, Bathinda, Punjab (Virtual)
	12.00 AM - 1.00 PM (1hr Theory)	• Confirm the tools and accessories selected are undamaged and safe to use. • Adhere with health and safety guidelines relevant to work area. Identify the appropriate harvesting stage of compost on the basis of the following quality parameter.	Prof. Shweta Yadav DHSGU, Sagar

	1.30 PM - 5.30 PM (4 hrs practical)	Practical Physico-chemical analysis Of unknown samples	Mr. Muneer Malla DHSGU, Sagar
12.04.2022	11.00 AM - 12.00 PM (1hr Theory)	Role of agriculturally important microbes	Dr. Ashwani Kumar DHSGU, Sagar
	12.00 PM - 1.00 PM (1hr Theory)	- Collect the top layer manually following approved procedures and in accordance with the vermicomposting method used such as tub method, container, etc. - Verify that harvesting of the worm castings are limited to layer above the earthworms presence.	Prof. Shweta Yadav DHSGU, Sagar
	1.30 PM - 5.30 PM (4 hrs practical)	Practical (Measurement of NPK)	Mr. Muneer Malla DHSGU, Sagar
13.04.2022	12.00 AM - 01.00 PM (1hr Theory)	- Feed the worms with partially decomposed organic wastes (prepared in correct ratio) to continue composting cycle relevant to the type of method selected. - Remove the upper layer of the stable and mature compost before harvesting the earthworms as per approved procedures.	Prof. Shweta Yadav DHSGU, Sagar
	1.30 PM - 5.30 PM (4 hrs practical)	Practical (Collection of earthworms from natural sites)	Mr. Nishank Sharma DHSGU, Sagar
18.04.2022	12.00 AM - 5.00 PM (2 hrs Theory)	Field visit Agricultural Research Center Sagar	Dr K.S Yadav Scientist Krishi Vigian Kendra Sagar Mr. Nishank Sharma DHSGU, Sagar
19.04.2022	11.00 AM - 12.00 PM (1 hr Theory)	Recycle the process by refilling the bed with partially prepared organic wastes in required quantity and ratio as per the type of vermicomposting method selected.	Dr. Keshav Singh Gorakhpur University Gorakhpur (Virtual)

	12.00 PM - 01.00 PM (1hr Theory)	Ensure that the compost collected is sun dried and sieved to obtain good quality material.	Prof. Shweta Yadav DHSGU, Sagar
	1.30 PM - 5.30 PM (4 hrs practical)	Practical (Observation of parameters of vermiwash, vermicompost and plants)	Ms. Nalini Tiwari DHSGU, Sagar
20.04.2022	11.00 AM - 12.00 PM (1hr Theory)	• Pack the compost in bags or containers made of suitable materials. • Store the bags or containers in cool and dry place.	Dr.Surindra Suthar Doon University Dehradun (Virtual)
	12.00 AM - 1.00 PM (1hr Theory)	• Ensure pest control practices are followed during storing. • Leave the work place in an environmentally safe condition.	Prof. Shweta Yadav DHSGU, Sagar
	1.30 - 3.30 (2 hrs practical)	Practical (Evaluation of parameters of unknown samples of earthworm)	Ms. Soumya Bhardwaj DHSGU, Sagar
21.04.2022	11.00 AM - 1.00 PM (2 hrs Theory)	Seek information regarding demand and supply of produce in the market.	Dr. Gautam Prasad DHSGU, Sagar
	1:30 PM - 3:30 PM (2 hrs Theory)	Identify target customers and assess their needs such as amount required, purpose, quality, expectations, etc.	Dr. Shalini Choithrani DHSGU, Sagar
	4:0 - 6.00 (2 hrs practical)	Practical (Operation of Accounts)	Mr. Ganesh Gangwani DHSGU, Sagar
22.04.2022	11.00 AM - 1.00 PM (2 hrs Theory)	Perform basic accounting such calculating expenditure incurred, costing and pricing of produce	Dr.Babita Yadav DHSGU, Sagar
	1:30 PM - 3:30 PM (2 hrs Theory)	• Ensure that the cost of production, transportation and marketing are included in costing and pricing	Dr. Gautam Prasad DHSGU, Sagar
	4:00 - 6.00 PM (2 hrs practical)	Practical (Maintenance of accounts)	Ms. Anita Singh DHSGU, Sagar

23.04.2022	11.00 AM - 1.00 PM (2 hrs Theory)	Collect information related to various subsidies /funds offered by the Government, authorized state units.	Dr. Sushama Yadav DHSGU, Sagar
	1:30 PM - 3:30 PM (2 hrs Theory)	Financial institutions involved with the promotion of the produce	Dr. Gautam Prasad DHSGU, Sagar
25.04.2022	11.00 AM - 1.00 PM (2 hrs Theory)	Comply with relevant regulations in marketing of the produce.	Dr. Gautam Prasad DHSGU, Sagar
	1:30 PM - 3:30 PM (2 hrs Theory)	Track information related to wholesale and retail price of the produce.	Dr. Babita Yadav DHSGU, Sagar
	4.00 PM - 6.00 PM (2 hrs practical)	Practical (Benefit cost ratio calculation)	Ms. Ankita Singh DHSGU, Sagar
26.04.2022	11.00 AM - 1.00 PM (2 hrs Theory)	Self employment & New Education Policy & NABARD	Dr K.S.Tiwari Regional Director of Indira Gandhi Nehru Open University Bhopal
	1:30 PM - 3:30 PM (2 hrs Theory)	Product Marketing	Dr Deepak Mathur Director Anvarat Samvad Society Sagar
	4.00 PM - 6.00 PM (2 hrs practical)	Practical (Account management)	Mr. Ganesh Gangwani Ronash Mothbani DHSGU, Sagar
27.04.2022	11.00 AM - 1.00 PM (2 hrs Theory)	Quality Management	Dr. Shalini Choithrani DHSGU, Sagar
	1:30 PM - 3:30 PM (2 hrs Theory)	Account management.	Dr. Sushama Yadav DHSGU, Sagar
	4.00 PM - 6.00 PM (2 hrs practical)	Practical (Account management)	Ms. Ankita Singh DHSGU, Sagar
28.04.2022	11.00 AM - 1.00 PM (2 hrs Theory)	Batch management	Dr. Gautam Prasad DHSGU, Sagar
	1:30 PM - 3:30 PM (2 hrs Theory)	Quality management	Dr. Shalini Choithrani DHSGU, Sagar
	4.00 PM - 6.00 PM (2 hrs Theory)	Identify appropriate marketing channels related to the produce considering requirements and constraints	Dr. Babita Yadav DHSGU, Sagar

29.04.2022	11.00 AM - 1.00 PM (2 hrs Theory)	Undertake basic safety checks before operation of all machinery and vehicles and hazards are reported to the appropriate supervisor. Work for which protective clothing or equipment is required is identified and the appropriate protective clothing or equipment is used in performing these duties in accordance with workplace policy. Read and understand the hazards of use and contamination mentioned on the labels of pesticides/fumigants etc	Dr. Rajesh Yadav DHSGU, Sagar
	1:30 PM - 3:00 PM	Health related information to the students	Dr Bhupendra Patel Medical Officer DHSGU, Sagar
	3:00 PM - 6:00 PM (2 hrs Theory)	- Assess risks prior to performing manual handling jobs, and work according to currently recommended safe practice. - Use equipment and materials safely and correctly and return the same to designated storage when not in use. - Dispose of waste safely and correctly in a designated area.	Dr. Sarvendra Yadav DHSGU, Sagar

30.04.2022	11.00 AM - 2.00 PM (2 hrs Theory)	• Recognize risks to bystanders and take action to reduce risk associated with jobs in the workplace. • Perform your work in a manner which minimizes environmental damage all procedures and work instructions for controlling risk are followed closely. • Report any accidents, incidents or problems without delay to an appropriate person and take necessary immediate action to reduce further danger	Dr. Kiran Maheshwari DHSGU, Sagar
	3.00 PM - 6.00 PM (2 hrs Theory)	• Follow procedures for dealing with accidents, fires and emergencies, including communicating location and directions to emergency. • Follow emergency procedures to company standard / workplace requirements. • Use emergency equipment in accordance with manufacturers' specifications and workplace requirements.	Dr. Umesh Patil DHSGU, Sagar
1-12 May 2022	Students Developed their own Vermicompost unit at DHSGU, Sagar		

Theory: 90 hrs

Practical: 110 hrs

Total = 200 hrs

Community College
Dr Harisingh Gour Vishwavidyalaya
(A Central University)
Sagar (M.P.)

