A REPORT ON MULBERRY PLANTATION A "GREEN PRACTICE " AT COLLEGE CAMPUS

Mulberry (*Morus* spp.) is being exploited by sericulture, pharmaceutical, cosmetic, food and beverage industries.

- It is regarded as a unique plant on earth due to its positive impact in environmental safety approach.
- It relieves mother nature from all ecological disturbances and hence appropriate to call it as most suitable plant in providing a sustainable environment for future generations.

Mulberry (*Morus* spp.) of Moraceae family is regarded as a unique plant on this earth due to its broader geological distribution across the continents; ability to be cultivated in different forms; multiple uses of leaf foliage and its positive impact in environmental safety approaches such as ecorestoration of degraded lands, bioremediation of polluted sites, conservation of water, prevention of soil erosion and improvement of air quality by carbon sequestering. Mulberry is also used as a medicinal plant in improving and enhancing the life of human beings by utilizing the biologically active pharmacokinetic compounds found in leaf, stem and root parts. Further industrial exploitation of mulberry through preparation of various products in pharmaceutical, food, cosmetic and health care industries has gained the attention of industrialists. As mulberry is being exploited by sericulture, pharmaceutical, cosmetic, food and beverage industries along with its utilization in environmental safety approach; it is appropriate to call it as a most suitable plant for sustainable development.



Mulberry plantation



Mulberry plantation

AREPORT ON 'VERMICOMPOSTING BY USING LEAF LITTER PRODUSED AT COLLEGE CAMPUS' A GREEN PRACTICE.

Vermicomposting is an environment friendly, low-technology method for the disposal of organic waste. It is the process in which the worms are used to convert the organic materials (usually wastes) into a humus-like material which is known as the vermin-compost. It is one of the easiest methods to recycle agricultural wastes and to produce quality compost. The resultant vermicompost produced is very beneficial for plant growth and health. The values, fertility and productivity of organic waste which has been returned to soil can be improved by beneficial impacts on soil resources and other processes. The production of organic wastes by the use of vermin compost technology is remarkably an effective technology for the reduction in processing time and also beneficial for the production of nutrients which are essential for the plants growth. It is a key component of the integrated plant nutrient supply system in order to maintain a healthy fertilization system along with maintaining safety. This organic fertilizer is considered to be present in both agriculture and horticulture as an alternative to the inorganic fertilizers in





Bed preparation for vermicompost



Adding water for maintaining proper humidity.





शेतकऱ्यांनी गांडूळखताची निर्मिती करावी

प्राचार्य डॉ. हुजरे : तासगाव महाविद्यालयात गांडूळखत निर्मिती प्रकल्प सुरू

तासगाव : पुढारी वृत्तसेवा

बदलत्या वातावरणाचा अभ्यास करून रासायनिक खतांच्या वापराला निर्बंध घातला पाहिजे. सेंद्रिय पद्धतीने शेती केली पाहिजे. त्यासाठी प्रत्येक शेतकऱ्याने स्वतः गांडूळ खत निर्माण करावे, असे प्रतिपादन प्राचार्य डॉ. मिलिंद हुजरे यांनी केले.

ते तासगाव येथील पद्मभूषण डॉ. वसंतरावदादा पाटील महाविद्यालयातील प्राणीशास्त्र विभागाने सुरू केलेल्या गांडूळखत प्रकल्पाच्या उद्घाटनप्रसंगी बोलत होते.

डॉ. हुजरे म्हणाले, प्राणी शास्त्र विभागाने सुरू केलेला हा एक स्तुत्य उपक्रम आहे. महाविद्यालयाच्या परिसरातील झाडांची पाने व कचरा



तासगाव : येथे पद्मभूषण डॉ. वसंतरावदादा पाटील महाविद्यालयात प्राणी शास्त्र विभागाने सुरू केलेल्या गांडूळखत प्रकल्पाची पाहणी करताना प्राचार्य डॉ. मिलिंद हुजरे. शेजारी अन्य शिक्षक.

यापासून उत्कृष्ट गांडूळखत होऊ शकते हे त्यांनी दाखवून दिले आहे. या खताचे वाटप तासगाव परिसरातील गरजू शेतकऱ्यांना केले जाणार आहे. तसेच महाविद्यालयाच्या बागेसाठी या

My Sangli Edition Apr 13, 2021 Page No. 3 newspaper.pudhari.co.in खताचा उपयोग केला जाणार आहे.

परिसरातील शेतकरी आणि महाविद्यालयातील सेवक वर्ग यांना प्राणी शास्त्र विभागामार्फत गांडूळखत निर्मितीचे मार्गदर्शन केले जाणार आहे.

A REPORT ON RAINWATER HARVESTING AS A GREEN PRACTICE IN P.D.V.P. MAHAVIDYALAYA, TASGAON

The **Rainwater harvesting** is the simple collection or storing of **water** through scientific techniques from the areas where the **rain** falls. It involves utilization of **rain water** for the domestic or the agricultural purpose. The method of **rain water harvesting** has been into practice since ancient times.

The benefits of rainwater harvesting system are listed below.

- Less cost.
- Helps in reducing the water bill.
- Decreases the demand for water.
- Reduces the need for imported water.
- Promotes both water and energy conservation.
- Improves the quality and quantity of groundwater.
- Does not require a filtration system for landscape irrigation.
- This technology is relatively simple, easy to install and operate.
- It reduces soil erosion, stormwater runoff, flooding, and pollution of surface water with fertilizers, pesticides, metals and other sediments
- It is an excellent source of water for landscape irrigation with no chemicals and dissolved salts and free from all minerals.



P.D.V.P.MAHAVIDYALAYA HAS SET SOLAR-WIND HYBRID POWER SYSTEM TO UTILIZE NONCONVENTIAL ENERGY RESOURSE. A GREEN PRACTICE.

Solar-wind hybrid system is basically an integration of solar plant and a wind energy plant. It will help in providing the uninterrupted power supply. As during bad weather conditions the production can be shifted from one plant to other with the help of a microcontroller. A microcontroller ensures the optimum utilization of resources and it also increases the efficiency of the combined system as compared to the individual mode of generation. It helps in decreasing the dependence on one single source and makes the system more reliable. The hybrid system can be used for both industrial and domestic applications.

1.1Solar Energy-

Solar energy is that energy which we get from the sun in form of radiation. It does not cause any kind of pollution, it is inexhaustible. It is available free of cost. Specially, in a country like India where sun shines for almost 300 days in a year, it is therefore a convenient mode of electricity production. Meager amount of investment is involved in setting up a solar power plant and also it is quite easy to maintain. The efficiency of the system is also quite good. Long life span and less emission of pollutants are its major advantages.

1.2 Wind Energy-

When air flows then it is having some kinetic energy with it which is known as wind energy. This kinetic energy is converted into mechanical energy by the wind turbine, which is used to rotate the shaft of the generator and then electricity is produced. The cost of generation of electricity is quite less. The best part about producing electricity with the help of wind energy is that wind is available for almost 24 hours in day, so there will not be any discontinuous production of electricity. The output varies with the speed of the wind.

1.3 Hybrid System

Now we have become even more interested in usage of renewable energy sources as an alternative method of producing electricity. Hybrid systems are basically an integration of solar panels and wind turbine, the output of this combination is used to charge batteries, this stored energy can then be transmitted to local power stations. In this system wind turbine can be used to produce electricity when wind is available and solar energy panels are used when solar radiations are available. Power can be generated by both the sections at the same time also. The usage of batteries is to provide uninterrupted power supply.





"BUTTERFLY GARDEN" A GREEN PRACTICES AT P.D.V.P. MAHAVIDYALAYA TASGAON A REPORT.

Ecological importance of butterflies

1. They pollinate the plants

Butterflies are great for your garden as they are attracted to bright flowers and need to feed on nectar. When they do this their bodies collect pollen and carry it to other plants. This helps fruits, vegetables and flowers to produce new seeds. The majority of plants need pollinators like bees and butterflies to reproduce

2. They're an indicator of a healthy environment

A garden that attracts butterflies will also bring <u>native bees</u> and birds.

They are all really good for the environment and play a role in increasing biodiversity – the variety of plants, animals and micro-organisms and their ecosystems.

Unfortunately for butterflies, they are also an important — though low-level — member of the food chain. They're a food source for birds, spiders, lizards, mice and other animals. Caterpillars are also eaten by bats, birds and other animals.

If butterfly populations diminish (or disappear altogether!), the impact will be felt higher up and can affect the entire ecosystem.

Because butterflies are so sensitive to habitat and climate change, scientists are monitoring them as one way of observing the wider effects of habitat fragmentation and climate change.

3. They make us happy

Naturalist and veteran broadcaster Sir David Attenborough says spending time in nature – even just watching butterflies in a home garden – is good for our mental health.

'A few precious moments spent watching a stunning red admiral or peacock butterfly feeding amongst the flowers in my garden never fails to bring me great pleasure,' he <u>said</u>.

. Butterfly garden

The butterfly is undoubtedly the most beautiful insect on earth. We all automatically relate these colorful creatures with flowers & gardens. The concept of the butterfly garden is simple; a particular garden is developed in such a way that it naturally attracts lots of butterflies. All the plants & overall micro-environment of the garden is made butterfly friendly. The idea is not just

to attract butterflies, but also the local butterfly species should feel homely & they should be encouraged to make this garden their own habitat. So when you enter a butterfly garden, you immediately notice their presence.

Butterflies of India?

India is blessed with rich diversity in the species of butterflies. Even urban areas of India and mega cities like Mumbai & Bangalore have significant local butterfly population. Following are some of the most common beautiful urban butterflies of India: Tailed Jay, Striped Tiger, Blue Tiger, the great orange tip, emigrant, commander, common grass yellow, Jezebel, Lime & much more. Southern Birdwing is the largest butterfly in India. Another big butterfly Blue Mormon is a state butterfly of Maharashtra. Blue oak-leaf is a butterfly that looks like a dry leaf.

Butterfly life cycle:

The lifecycle of a butterfly is the most interesting part. The female butterfly lays tiny eggs on host plant leaves. The eggs hatch into larvae within few days. The larvae become young caterpillars as they continuously feed on the leaves. Caterpillars gain weight every day and increase in size multifold as they go on feasting on host plant leaves. As the mature caterpillars gain full size, they move into the phase of rest & form a pupa. Although it looks like the insect is hibernating, a lot is happening inside pupa. In a matter of 2-3 weeks, an adult butterfly breaks open the pupa, spreads its wings & disappears in the garden in search of nectar.

Butterfly host plants:

These are the plants where eggs are laid, larvae, caterpillars & pupa are formed. These are the plants on which the caterpillars feed on. Butterflies are called first botanists of earth. They recognize host plants by chemical stimuli & lay eggs on a particular group of species only. Examples of butterfly host plants: False Ashoka, Curry leaves, Custard Apple, Castor, Silk cotton tree, Calotropis, Cassia, Citrus, etc.

Butterfly nectar plants:

These are the flowering plants that attract hovering butterflies for nectar. Butterfly attracting flowers are mostly colorful, small in size & many in number. Nectar plants can be perennials or annuals.



Plantation in Butterfly garden



BLOOMED FLOWERS IN BUTTERFLY GARDEN



Butter fly garden