

Field Visit at Govigyan and Anusandhan Kendra, Deolapar

*"REPORT
on
FIELD VISIT*

At

GO-VIGYAN ANUSANDHAN KENDRA, DEOLAPAR, NAGPUR"

Organized By
Arōgya Parigyan Club
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Submitted
by
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INTRODUCTION

Go-Vigyan Anusandhan Kendra, Deolapar, Nagpur (GVAK) is a non-government organization dedicated to propagation of comprehensive usefulness of cows and research in **PANCHGAVYA** i.e. five useful cow products namely milk, curds, ghee, urine and dung. The Project was established in 1996. The idea behind the project was that for centuries together India has been agricultural land and cattle, in general and cows in particular have been the backbone of farming activities. Indian soil was supposed to be a rich mine producing raw materials for food, shelter and clothing- the three fundamental needs of humans. Thus, cows, calves, bulls and oxen were very much part of Indian life, its traditions and culture. With changing times modern techniques, tools, practices influenced agriculture just as they did all other walks of life.

They had both good and bad effects on traditional agriculture. Along with agriculture, healthcare was also linked to cow products as panchgavya medicines were an inseparable part of India's own traditional system of medicines Ayurveda. Hence, **Go Vigyan Anusandhan Kendra** intends to scientifically re-establish the multi-dimensional usefulness of cows and their products. GVAK aims to revive the lost and forgotten utility of cows but on a firm foundation of scientific research using modern parameters acceptable globally. Thus, "*Go Aadharit Krushi*" and "*Panchgavya Chikitsa*" i.e. **cow-based agriculture and cow-products based healthcare** are the two focal areas in which GVAK mainly works in a comprehensive manner. SILENT FEATURES

- There are almost **825** Govanshas at Go-Vigyan Anusandhan Kendra, Deolapar.
- Among all 825 Govanshas, there are **11** cows gives milk at present.
- The Gobar and Gomutra from Govanshas is used for organic farming.
- The GVAK has its own "Panchgavya Ayurveda Bhawan" for production of 39 various Ayurveda products.
- Panchgavya is obtained from Govanshas and it consists of following components:
 - ✓ Milk
 - ✓ Curds
 - ✓ Ghee
 - ✓ Urine
 - ✓ Dung
- The conduction of Gram Rojgar Scheme.
- The training sessions for farmers and other interested volunteers.
- The vaccination and other programmes for Govanshas.
- The Patents and Copyrights.

OBJECTIVES

- Creating a positive environment across the country for cow protection and promotion.
- Giving information about 'cow shelter sites' for conservation and promotion of pointless, old, sick and abandoned cows.
- Telling the utility of pointless, old cows.

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- Giving information about cow products and employment opportunities.
- To inform about the schemes of Central and State Governments clearing grazing land.
- Public awareness to make the Cow Slaughter Prevention Act effective.
- To work for the protection and promotion of cow in collaboration with various organizations dedicated to cow service across the country.

SHADES FOR GOVANSHAS

The Gaushala is divided into two parts. There are 2 shades for Govanshas for the better maintenance and habitat.

SHADE-I

This area of SHADE-I is also called as a quarantine area. The SHADE-I is allotted for newly adopted Govanshas to avoid any infectious disease brought with them to the others if any. The shade is proper, well maintained with the supply of proper water, drainage system, proper lighting, and well ventilated.

SHADE-II

The SHADE-II is for healthy Govanshas. This is well maintained with the facility of light,



urine collection chamber. The space is provided for feeding purpose. The Govanshas having unique no. and bar code containing detail information (Name, age, date of vaccination, and other) of the animal attached in their ears. The cow waste and cow dung is collected in one chamber and is used for biogas process. The fresh cow urine is collected everyday physically by the personnel for further processing of Gomutra in urine distillation chamber.

CHEMICAL COMPOSITION OF COW'S URINE (GOMUTRA)

Water 95%

Urea 2.5%

Others 2.5%



Urea (antimicrobial)	Swaranakshar (antibacterial, improves immunity)
Uric Acid (antimicrobial, anticancer)	Enzyme Urokinase (improves circulation)
Nitrogen (stimulates kidney)	Colony Stimulating Factor (improves cell division)
Sulphur (purifies blood)	Erythropoietin Stimulating Factor (RBC production)
Iron (production of RBC's in blood)	Gonadotropin (promotes menstrual cycle, production)
Potassium (reduces muscle fatigue)	Kallikrein (helps in reducing BP)
Copper (controls fat deposition)	Allantain (heals wounds)
Carbolic Acid (Antibacterial)	Anti-cancer Substance (prevents multiplication of cancer cells)
Ammonia (integrity for blood tissues)	Phenols (bactericidal, antifungal)
Sugar Lactose (prevent thirst)	Creatinine (antibacterial)
Vit. A, B, C, D & E (infuse vigour)	

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BIO-GAS PLANT

Capacity:- 25 Cubic Meter, 350 Kg

Process:-

350 Kg Gobar and 350 L water is mixed well to form slurry



This acts as a medium for bacterial growth and putrefication



This bacteria promotes the process of **fermentation**



As the process of fermentation of Gobar is completed it leads to the formation of **Methane Gas**.



The established biogas unit can produce around 13.5 Kg gas per day.



This produced gas is used as fuel for Distillation of Gonutra (**ARK production**) and for other purposes.



DISTILLATION OF COW'S URINE (ARK PRODUCTION)

Process:-

About 15 L of Cow's urine is taken up for the process of distillation at a one time.



This urine is allowed to form distillate by traditional distillation process at a high temperature.



In the distillation process the apparatus used is made up of soil instead of glass and coated with cement to avoid its breakage due to high temperature.



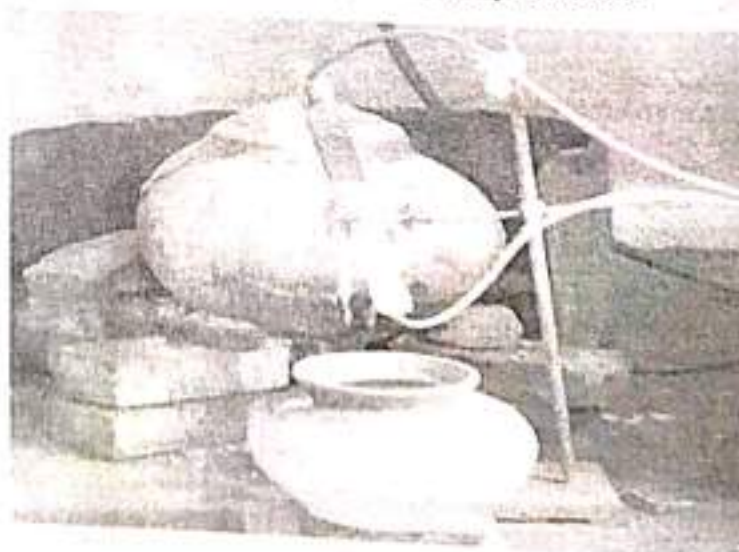
The apparatus made up of soil is used because it serves the high purity of Ark as compared to glass apparatus.



About 7.5 L of Ark is obtained at one time.



The formed Ark is used in little concentration for consumption and has a wide medicinal use like in cancer treatment, diabetes, and skin problems.



PRODUCTION OF FERTILIZERS

Process:-

In this process, (10 L Gomutra, 2.5 Kg Neem, 12 Kg Lahsun) is mixed well.



Allowed it to stand for 21 days.



After period of 21 days, the components are separated out by method of sieving.



The filter is obtained is heated till the formation of 2.5 L liquid.



The obtained liquid is used as fertilizer in the concentration as 1-2 L in 100 L.





VERMI COMPOST FORMATION

Process:-

The ditch is made in ground having **10 Feet length, 3 Feet breadth and 9 Inches of depth.**



The ditch is made in such a way that it has not exposure to **direct sunlight** because the earthworms used are very sensitive to sunlight.



The ditch is properly surrounded by the soil obtained from digging.



Initially, the **Gobar** is placed in the ditch for protection of earthworms from other insects. Then the pieces of bricks are placed for hiding the earthworms at the time of soil separation.



Finally, the earthworms are placed. The breed of earthworms **Eisenia foetida** or **Lumbricus rubellis** are used.



After that the water is sprayed for **21 days** to cool the conditions.



After drying, the soil from upper layer is separated out and used as a compost in farming.

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PLANT SPECIES observed during visit

Napier Grass- The grass species with a life span of 13 years. It grows at very fast rate. It grows about 2-3 inches overnight. It is multipurpose forage crop, primarily used to feed cattle in cut and carry feeding system. It is a high yielding green fodder and is very good for dairy cows. Besides yielding, it has crude protein ranging from 17-18%.



Original Ashoka Tree- Ashoka tree is useful to manage female disorders like dysmenorrhea and menorrhagia due to its vata balancing property. It also helps to control bleeding in piles due to its cold property. Ashoka is also an effective remedy for managing worm infestation due to its anti-worm property.

Arjuna Tree- the Arjuna trees are planted on all sides of farm. It attracts all the insects which are harmful for the main crops. So that it helps to protect the crops from various insects and pests.



KAMDHENU PANCHGAVYA AYURVEDA BHAWAN

The GVAK has its own Panchgavya Ayurveda Bhawan at which the production of various ayurvedic medicines is carried out. It is having various units which areas follows:

- Raw Material Store
- Extraction Unit
- Asava and Arishta Section
- Liquid Filling and Sealing Section
- Vati Compression Unit
- Distillation Unit
- Instrument Room
- Quality Control Section



The GVAK has developed and producing about 39 types of Ayurveda products. Some of them are listed below.

- Kamdhenu Gomutra Ark
- Kamdhenu Gomayadi Lepa Tikiya
- Medohar Ark
- Kamdhenu Anti-dandruff Lotion
- Kamdhenu Kesh Tail
- Kamdhenu Ghanvati
- Kamdhenu Chandan Dhoop
- Kamdhenu Jatyadi Ghrit
- Kamdhenu Panchgavya Ghrit
- Kamdhenu Dantmanjan
- Kamdhenu Shuddh Sched, etc.



KNOWLEDGE SESSION

After the project visit the knowledge session was conducted by Mrs. Nandini Bhojraj Madam. The key points from the session are as follows.



- According to Ayurveda, the cow's milk is the most beneficial after mother's milk, that's why cow is called as 'mother'.
- By serving the cow selflessly, one attains salvation and the conscience becomes pure.
- The session is proceed by highlighting the topic called "Vanari Gutika" which is a herbal ayurvedic medicine which is used to treat male sexual disorders, infertility, bleeding disorders, weakness and Parkinson's Disease.
- The session was ended by telling the importance of "Punarnava", scientifically known as *Borrhaevia Diffusa*, is used in ayurveda due to its many health benefits.
- Nutrients present in Punarnava plants are extremely important for our liver, kidney, eyes and



efficient functioning of the body.

➤ On behalf of Priyadarshini J. L. College of Pharmacy, Mr. Prashant Amale Sir, summarized the knowledge session and proposed the vote of thanks followed by felicitation of Nandini madam by Mr. Prashant Amale, Dr. Mrs. Sonal Motghare and Mr. Anup Thakare.

Outcome of the visit

- We learn various aspects of Panchgavya and importance of Cows in our life
- We have seen various opportunities in Gowansha research, medicinal plant plants values
- Various techniques of manufacturing the ayurvedic preparations like Asawam arishtha, kadha
- Farming techniques and prevention of crop diseases
- Experienced value of organic food and enjoyed its health and delicious taste
- Observed carefully the student handling and visit planning skill of in charge faculty
- Learn about the nature and natural facts that are helpful in day to day life.

Following students of M. pharm Pharmacology-Sem I visited the GVAK Deolapar, under the guidance of Mr. Prashant N. Amale, Asst. Professor in Pharmacology, P.JLCP, Nagpur

Sr. No.	M. Pharm. Sem I (Pharmacology)	Signature
1	Akshay Bidwaik	<u>Akshay Bidwaik</u>
2	Satish Vilas Misar	<u>Satish Misar</u>
3	Shreya Pathare	<u>Shreya Pathare</u>
4	Binayak Sarkar	<u>Binayak Sarkar</u>
5	Abdul Rehmat Ansari	<u>Abdul Rehmat Ansari</u>
6	Jagruti Thaware	<u>Jagruti Thaware</u>
7	Prabhu Salekar	<u>Prabhu Salekar</u>
8	Samiksha Ajmire	<u>Samiksha Ajmire</u>
9	Mayur Lohi	<u>Mayur Lohi</u>
10	Sayli Kurjekar	<u>Sayli Kurjekar</u>



Prof. Asst. Prof. / Asst. Prof.
Priyadarshini J.L. College of Pharmacy, Nagpur

Handwritten notes and signatures on the right margin, including a signature and the date '24/09/2023'.