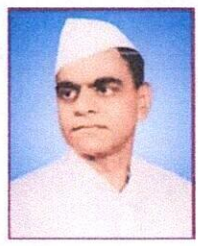




Janata Shikshan Sanstha's  
Kisan Veer Mahavidyalaya, wai



**DEPARTMENT OF BOTANY**

# HERBAL PREPARATION REPORT

**B. Sc III**



**2023-24**





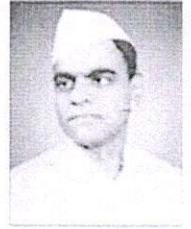
JANATA SHIKSHAN SANSTHA'S

## Kisan Veer Mahavidyalaya, Wai

Department of Botany

Class B Sc. III (2023-24)

Project on Herbal Preparation



Sr.No.	Roll No.	Students Name	Title of Project
1	1	Sawant Shreyasi Satish	Preparation of Triphala Churn
2	32	Ladaf Madina Abdul	Preparation of Aloevera gel
3	33	Warkhade Shivanjalee Ajit	Cough syrup
4	35	Pawar Diksha Prakash	Preparation of Herbal drugs
5	54	Jaygude Manasi Pradeep	Herbal soap
6	64	Bhosale Pratiksha Dinkar	Amala Hair oil
7	74	Kale Vaishnavi Umesh	Herbal tooth paste
8	75	Dagade Shivani Dnyaneshwar	Rose oil
9	76	Shinde Vaishnavi Dattatrya	Preparation of Hair dyes
10	77	Gole Supriya Suryakant	Preparation of Herbal capsule
11	87	Jadhav Ankita Dashrath	Herbal paste
12	88	Bhosale Shrikant Bhikaji	Preparation of Herbal wine



Head

Dept. **HEAD** any  
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Janata Shikshan Sanstha's

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**CERTIFICATE**

This is certifying that Mr/ Miss Ladaf Madina Abdul of B.Sc II /  
B.Sc III Roll no. 37 has successfully completed Herbal preparation report  
during the academic year 2023-24 in partial fulfillment of botany practical  
examination conducted by Department Of Botany, Kisan Veer Mahavidyalaya,  
Wai.

Date: 1/03/24

Place:

K. Palhav.

Teacher In- charge



H. Palhav.

Head

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Kisan Veer Mahavidyalaya, Wai.

Examined

[Signature]

External examiner

6/3/24



Janata Shikshan Sanstha's

**KISAN VEER MAHAVIDYALAYA, WAI**



**CERTIFICATE**

This is certifying that Mr/ Miss shinde Vaishnavi Dattatray B.Sc II /  
B.Sc III Roll no. 76 has successfully completed Herbal preparation report  
during the academic year 2023-24 in partial fulfillment of botany practical  
examination conducted by Department Of Botany, Kisan Veer Mahavidyalaya,  
Wai.

Date:

Place:

Wai

Teacher In- charge



*Examined*  
*[Signature]*  
*6/3/24*

External examiner

*[Signature]*

Head

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**Department of Botany**

Janata Shikshan Sanstha's

KISAN VEER MAHAVIDYALAYA, WAI



## CERTIFICATE

This is certifying that Mr/ Miss Jaygude Manasi Pradeep of B.Sc II /  
B.Sc III Roll no. 54 has successfully completed Herbal preparation report  
during the academic year 2023-24 in partial fulfillment of botany practical  
examination conducted by Department Of Botany, Kisan Veer Mahavidyalaya,  
Wai.

Date: 5-3-2024

Place: Wai

W. S. Thar

Teacher In- charge



Head

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Kisan Veer Mahavidyalaya

Examined  
3/1/24  
External examiner



Janata Shikshan Sanstha's

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## CERTIFICATE

This is certifying that ~~Mr/ Miss~~ Kale Vaishnavi Umesh of ~~B.Sc II~~  
B.Sc III Roll no. 74 has successfully completed Herbal preparation report  
during the academic year 2023-24 in partial fulfillment of botany practical  
examination conducted by Department Of Botany, Kisan Veer Mahavidyalaya,  
Wai.

Date: 11/03/24

Place: wai.

M. S. Thakur

Teacher In- charge



[Signature]

Head

Examined

[Signature]

External examiner

Department of Botany

Janata Shikshan Sanstha's

**KISAN VEER MAHAVIDYALAYA, WAI**



**CERTIFICATE**

This is certifying that Mr/ Miss Dagade Shivani D. of B.Sc-H /  
B.Sc III Roll no. 75 has successfully completed Herbal preparation report  
during the academic year 2023-24 in partial fulfillment of botany practical  
examination conducted by Department Of Botany, Kisan Veer Mahavidyalaya,  
Wai.

Date:

Place: Wai  
Hadhav

Teacher In- charge



Head

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Kisan Veer Mahavidyalaya, Wai

Examined  
[Signature]  
External examiner

6/3/24

Janata Shikshan Sanstha's

KISAN VEER MAHAVIDYALAYA, WAI



## CERTIFICATE

This is certifying that ~~Mr/~~ Miss Sawant Shreyasi Satish. of ~~B.Sc II /~~  
B.Sc III Roll no. 01 has successfully completed Herbal preparation report  
during the academic year 2023-24 in partial fulfillment of botany practical  
examination conducted by Department Of Botany, Kisan Veer Mahavidyalaya,  
Wai.

Date: 6-3-2024.

Place: Wai

Teacher In- charge



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Examined  
  
External examiner  
6/3/24



Janata Shikshan Sanstha's

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## CERTIFICATE

This is certifying that Mr/ Miss Pratiksha Dinkar Bhosale of B.Sc II /  
B.Sc III Roll no. 64 has successfully completed Herbal preparation report  
during the academic year 2023-24 in partial fulfillment of botany practical  
examination conducted by Department Of Botany, Kisan Veer Mahavidyalaya,  
Wai.

Date: 6/3/2024

Place:

H. Pathav

Teacher In- charge



[Signature]

Head

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Kisan Veer Mahavidyalaya, Wai

External examiner

[Signature]

6/3/24

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**KISAN VEER MAHAVIDYALAYA, WAI**



**CERTIFICATE**

This is certifying that Mr/ Miss Jadhav Ankita Daghmath of B.Se-II /  
B.Sc III Roll no. 87 has successfully completed Herbal preparation report  
during the academic year 2023-24 in partial fulfillment of botany practical  
examination conducted by Department Of Botany, Kisan Veer Mahavidyalaya,  
Wai.

Date:

Place: - Wai

H. Jadhav

Teacher In- charge



[Signature]

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Examined  
[Signature]

External examiner

6/3/24



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## CERTIFICATE

This is certifying that Mr/ Miss Shrikant Bhikaji Bhosale of B.Sc II /  
B.Sc III Roll no. 88 has successfully completed Herbal preparation report  
during the academic year 2023-24 in partial fulfillment of botany practical  
examination conducted by Department Of Botany, Kisan Veer Mahavidyalaya,  
Wai.

Date: 02/03/2024

Place: wai

M. Jadhav

Teacher In- charge



H. Jadhav

Head

HEAD

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Kisan Veer Mahavidyalaya

Examined  
[Signature]  
External examiner

6/3/24

Janata Shikshan Sanstha's

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**CERTIFICATE**

This is certifying that Mr/ Miss Warkhade Shivanjalee Ajit of B.Sc II /  
B.Sc III Roll no. 33 has successfully completed Herbal preparation report  
during the academic year 2023-24 in partial fulfillment of botany practical  
examination conducted by Department Of Botany, Kisan Veer Mahavidyalaya,  
Wai.

Date: 01/03/2024

Place:

A. J. Jethar  
Teacher In- charge



P. S. Jethar

Head  
HEAD

DEPARTMENT OF BOTANY  
Kisan Veer Mahavidyalaya, Wai

Examined  
3/3  
External examiner  
01/3/24



Janata Shikshan Sanstha's

KISAN VEER MAHAVIDYALAYA, WAI



## CERTIFICATE

This is certifying that ~~Mr/~~ Miss Gole Supriya Suryakant of ~~B.Sc II /~~  
B.Sc III Roll no. 77 has successfully completed Herbal preparation report  
during the academic year 2023-24 in partial fulfillment of botany practical  
examination conducted by Department Of Botany, Kisan Veer Mahavidyalaya,  
Wai.

Date: 1/3/2024

Place: Wai.

M. Ashok

Teacher In-charge



M. Ashok

Head

HEAD

DEPARTMENT OF BOTANY

Kisan Veer Mahavidyalaya, Wai

Examined  
M. Ashok

External examiner

6/3/24

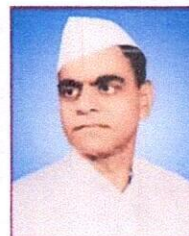
B.Sc. III

Sample copy of Project





Janata Shikshan Sanstha's  
Kisan Veer Mahavidyalaya, wai



**DEPARTMENT OF BOTANY**

# HERBAL PREPARATION REPORT

**B. Sc III**



**2023-24**



Janata Shikshan Sanstha's

KISAN VEER MAHAVIDYALAYA, WAI



## CERTIFICATE

This is certifying that Mr/ Miss Pawar Diksha Prakash of B.Sc-II/  
B.Sc III Roll no. 35 has successfully completed Herbal preparation report  
during the academic year 2023-24 in partial fulfillment of botany practical  
examination conducted by Department Of Botany, Kisan Veer Mahavidyalaya,  
Wai.

Date: 01-03-2024

Place:

H. Pathar  
Teacher In- charge



H. Pathar

Head

HEAD

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Kisan Veer Mahavidyalaya, Wai

Examined  
[Signature]  
External examiner

6/3/24



## **Introduction:**

Nature has bestowed our country with an enormous wealth of medicinal plants; therefore India has often been referred to as the Medicinal Garden of the world. Today, people around the globe are giving preference to alternative medicines such as ayurveda, naturopathy, homeopathy and herbal medicine. Herbal medicine is cost effective and less expensive than the medicines bought from an allopathic pharmacy. Increasing realization of the side effects of allopathic medicines, coupled with the growing awareness about the medicinal benefits as well as therapeutic effect of herbal products is pushing up the demand for herbal extracts, dietary supplement and herbal-based beauty aids worldwide. Herbal extraction and processing is very vast field. Some of the known projects are, rose plantation, cultivation & rose oil extraction plantation, cultivation of medicinal plant & herbs, Kali mahendi (henna), aloe vera gel, aloe vera gel & powder, aromatic plants cultivation & processing, asparagus cultivation & processing, ayurvedic churan & tablets, ayurvedic raw material from mercury a-singraph (hingula) or cinnabar (hgs), b-ras sindhoor, ayurvedic/herbal pharmacy, cough syrup, hair dyes (hinna based), herbal natural essential oil (steam distillation process), herbal shampoo & cream, herbal concentrate in the mg. Of herbal drugs & concentrate, herbal extracts, herbal medicinal plant & processing, herbs cultivation & processing, herbs cultivation & processing, menthol crystal from menthol oil, patchouli oil, plantation, cultivation of medicinal plant & herbs, sindur roli bindi & gulal, tobacco based tooth powder, toilet & herbal soap, herbal capsules, herbal face paste, rajnigandha oil, amla cultivation, plantation, amla hair oil based on vegetable oil, aloe vera processing, artemisia vulgaris oil, aloe vera gel, juice and powder, ayurvedic hair oil for colouring of hair oil, herbal wine, mehendi cone, hibiscus cultivation, herbal beer, azadirachtin from neem, neem based pesticide, moringa -miracle tree, etc.





## **Information**

The Ayurvedeeya Arkashala Ltd. is one of the major manufacturers of Quality Ayurvedic medicines in Maharashtra since 1926. The factory is located at Satara, a growing town on Pune- Bangalore Highway/NH-4 (120 km from Pune) in Maharashtra. Arkashala was established by Late Shri. Dr. M. N. Agashe, a devoted worker of Ayurveda. Although, he was graduate of Allopathic medicine, he had a keen interest in Ayurvedic system of medicine. His aim was to provide effective and reliable Ayurvedic medicines to treat common ailments with minimal side effects, at low cost. Arkashala has been engaged in manufacturing Quality Ayurvedic Products for more than 90 years as per standards and procedures prescribed in ancient Ayurvedic texts.

**Name of the locality** – Ayurvedic Arkshala, Sarara

**District** – Satara

**Owenership** – Private

**Approximate area** – 2 Acres

## **PRODUCT & ITS APPLICATION:**

There are a number of Herbal extract producers all over India. Important producers include the following Cosmetics, Food Pharmaceuticals, Creams, Shampoos, Lotions, Talcum powder, Moisturizers, Food supplement, Sports drinks, Health drinks, Anti-inflammatory Detoxification, Treatment of several illness.





## **RAW MATERIAL REQUIREMENTS:**

Raw material requirements for selected herbal extracts are given below

Amla for Amla oil, Amla Fruit, Aloe Vera Generally, three leaves provide one kg. of Aloe vera gel. Supply of Aloe Vera Leaves Aloe Vera is extensively cultivated. There is no particular constraint in expanding the area of cultivation of Aloe Vera to meet the projected increase in the demand. Therefore, the supply scenario of Aloe Vera Plant material is likely to remain comfortable. Guggul 700 to 900 Kg are produced per hectare of Guggul gum plantation. Gum is dried in shade and stored. Guggul is cultivated in Gujarat, Karnataka and Rajasthan. Vetiver For 1.5 kg of Vetiver oil 100 Kg Vetiver is required. The herbs are grown all over India in different climatic and seasonal conditions. The raw materials is available as Leaves, Stems, Barks, roots, Flowers, Seeds, Kernels and Shells. Depending on the physical properties, including shape and size one has to select the equipment's.

## **MANUFACTURING PROCESS:**

The manufacturing process for various herbal extracts depend upon the nature of the individual herbs and the specific process requirements. The various unit operations are used in the extraction of herbs such as extractors, dryers pulverisers etc. Observance of specific and stipulated conditions for the production of herbal extracts are necessary to ensure that there would not be any deterioration in product quality or stability. Take care in Procurement: Identification a must, before purchasing or growing fresh/dried herbs. Discriminate look a likes, identical species and adulterated herbs. Cleaning and Drying of plant material; to be specific to species as well as end products. Freeze drying, Spray drying and Flash drying are important methods Sun drying is usually the common initial step. Storage in controlled atmosphere in an aseptic lay out is a must to maintain keeping quality in terms of colour, actives and fragrance. Temperature, air flow and humidity are closely monitored. Pulverisation and Grinding media & temperature can play a vital role in quality of final product. Sifting through various mesh sizes for different end use is strictly followed. This directly determines the





absorption and effectiveness of the herb. Plant materials contain microbial contamination which resist most of the cleaning techniques. Total Sterilization is mainly effected through exposure to Ethylene Oxide and Gamma radiation. It is a must to automate or semi-automate filling. The gauge and material of the packing materials should prevent ingress of air and moisture. This avoids oxidation, discolouration or deterioration. Standard analytical methods are used to determine characteristics. Organoleptic tests can sometimes determine trace component levels. Chromatographic methods are used for quantitative analysis. Microbiological Examination and Toxicological tests have to be performed to determine the safety of the herb. Pesticide Residue and Heavy metals are to be analysed to ensure nil side effects. Clinical trials or post marketing surveillance ensures that adverse drug interactions are avoided.

\*Distillation

\* Hydro-distillation.

\* Steam distillation

\* Water-steam distillation

\* CO<sub>2</sub> Supercritical Extraction

\* Hydro-diffusion

\* Molecular Distillation

\* Spinning Cone Column Distillation.





## GANDHARVA HARITAKI

(Mild Laxative herbal powder)

**Ingredients:** Bal haritaki (Terminalia chebula), erand tail (castor oil), sunthi, saindhav, padelon, pimpali.

**Properties:** Gandharva Haritaki is well established as a mild herbal laxative as it corrects constipation by inducing regular bowel movements. Gandharva haritaki does not cause griping pain. It is safe for senior citizen, delicate female and persons suffering from fissure and piles. It is harmless for long term use. Gandharva Haritaki restores normal bowel function and is non habit forming.

**Indications:** Chronic constipation, dyspepsia, piles, haemorrhoids

**Dosage and Administration:** - 1-2 teaspoonfuls with warm water before going to sleep.

**Presentation:** Plastic container of 50 g , 100 g, 200 g and 500 g.



## COUGH MIXTURE

(Ayurvedic cough formula - Asavarishta form)

**Ingredients:** Adulsa, Jestamadha, Sunthi, Pimpali, Cashew apple juice.

**Properties:** abc

**Indications:** Chronic cough, acute and chronic bronchitis, Asthmatic attack, common cold, it can be used by entire family for regular use as safe herbal cough mixture.

**Dosage and Administration:** 2 to 4 Teaspoonfuls (10 to 20 ml.) twice or thrice a day with equal quantity of water.

**Presentation:** Bottle of 200 ml, 450 ml, and Plastic can 1 lit.



## BAKUL DANT DHAWAN

(Ayurvedic herbal toothpowder)

**Ingredients:** Fine powders of Bakul, babul, neem, triphala, alum, camphor. (This is ayurvedic herbal toothpowder and it does not contain chalk powder.)

**Properties:** Bakul Dant Dhawan is formulated to treat disorders of teeth and gum. Bakul is useful for fixing the teeth while babul is very famous in oral care and strengthening





## SHATAVARI KALP

(Invigorating tonic for all in granules form)

**Ingredients:** Each 10 g contains Shatavari (Asparagus racemosus) 1.1 g, Welchi (Ellataria Cardamomum) 0.1 g and Sugar 8.8 g.

**Properties:** Shatavari is reputed herb for its stimulating, nutritive, invigorating and anabolic properties. It acts as balya for entire body especially on eyes, muscles, reproductive organs and tissues. It increases milk secretion and helps to regain vigour and vitality. Welchi is added for its aromatic, stimulant and flavouring properties.

**Indications:** It is very useful to increase milk secretion when used regularly for delivery. It is also indicated as tonic for weak, debilitated, anemic and convalescent persons to regain strength. Shatavari Kalpa is in the form of flavoured granules to be taken with milk. It is recommended for regular use for entire family.

**Dosage and Administration:** 2-4 tablespoonful with hot or cold milk two times a day. (Do not add sugar.)

**Presentation:** Plastic jars of 250 g, 500 g and 1 Kg.



## ADULSA MIXTURE

(Safe Herbal Remedy for Cough)

**Ingredients:** Adulasa, jeshthmadh, behada

**Properties:** Adulasa (Adhatoda vasica) is well known medicinal herb for cough. It acts as bronchodilator and expectorant. Jeshthmadh is sweet and demulcent. Behada is good astringent.

**Indications:** Cough, Allergic cough, breathlessness, early bronchitis.

**Dosage and Administration:** 2-4 tablespoonfuls to be taken twice or thrice a day diluted with equal quantity of water.

**Presentation:** Bottles of 100 ml (with carton), 200 ml (with carton), 450 ml, Plastic can of 1 lit.





gums. Neem is germicidal and helps in healing cracks, ulcers and wounds in mouth. Alum stops bleeding from gums. Camphor prevents bad breath and gives cooling sensation. Its daily use cures pyorrhea and maintains good oral health.

**Indications:** Dental pain, bleeding gums, bad breath, poor dental health. Recommended for daily use as tooth powder.

**Dosage and Administration:** Sufficient quantity to be applied on teeth and gums, kept for some time and then wash thoroughly with water.

**Presentation:** Plastic container of 50 g , 100 g and 500 g.



*J. J. Joshi*

**HEAD**  
**DEPARTMENT OF BOTANY**  
Kisan Veer Mahavidyalaya, Wai