



**S.T.S.N. Govt. Degree College
KADIRI - 515591
Ananthapuramu Dt.**



Minutes of the Meeting

Date: 11.12.2020

Time: 10 AM

Location: S.T.S.N. GDC, Kadiri.

Names of Attendees: Dr. K.Sreedevi, HOD, Lecturer in Botany.
Kum. V.Roja rani, Guest Faculty in Botany.

Agenda:

1. Discussion on the Certificate Course in "Aloe vera Gel Preparation" at the Department of Botany, STSN GDC, Kadiri.
2. Planning and coordination of activities related to the course.
3. Setting objectives and expectations for the course.
4. Allocation of responsibilities among the team members.
5. Deciding on the schedule and dates for the course (from 16.12.2020 to 08.01.2021).

Certificate Course in "Aloe vera Gel Preparation"

Objective of the Course: The objective of the course is to provide participants with comprehensive knowledge and practical skills in the cultivation, processing, and quality control of Aloe vera gel.

Planning and Coordination: The team discussed the overall plan for the course, including lecture schedules, practical sessions, and field visits.

Setting Objectives and Expectations: Participants should gain a thorough understanding of Aloe vera cultivation, gel extraction, quality control measures, and business aspects. Emphasis on hands-on experience during practical sessions.

Responsibilities: Responsibilities were assigned to team members for various aspects of the course, including lectures, practical sessions, and administrative tasks.

Schedule and Dates: The course will run from 16.12.2020 to 08.01.2021, with specific modules and activities planned for each day.

Course Modules: The course modules and topics was discussed and finalized.

Materials and Resources: Ensuring availability of required materials, including Aloe vera plants, processing equipment, and documentation.

Evaluation and Certification: The team discussed the evaluation criteria for participants and the certification process upon completion of the course.

S. Sathya Sai

PRINCIPAL
STSN Govt. DEGREE COLLEGE
KADIRI - 515 591

Sri Sathya Sai (Principal)

K. Sree Devi

Dr. K. Sreedevi
HOD, Dept. of Botany
STSN GDC, Kadiri



Letter

To
The Principal,
STSN GDC,
Kadiri.

Subject: Request for Permission to Conduct Certificate Course in "Aloe Vera Gel Preparation"

Respected Madam,

I am happy to request your kind permission to conduct a Certificate Course in "Aloe Vera Gel Preparation" at STSN Government Degree College, Kadiri. The course will be organized by the Department of Botany, from 16.12.2020 to 08.01.2021. The primary objective of this course is to provide participants with a comprehensive understanding of Aloe Vera cultivation, processing, and the preparation of high-quality Aloe Vera gel.

Thank you for your time and consideration. We look forward to your positive response.

K. Sreedevi

Dr. K. Sreedevi,
Head of the Department,
Lecturer in Botany.

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Date:11-12-2020

CIRCULAR

The prestigious Botany Department of STSN GDC, Kadiri proudly announces the novel launch of add-on certificate course on "*Aloe-Vera Gel Preparation*" and its medical importance.

Use of aloe vera

Two substances from Aloe vera – a clear gel and its yellow latex – are used to manufacture commercial products. Aloe gel typically is used to make topical medications for **skin** conditions, such as **burns**, wounds, frostbite, rashes, psoriasis, cold sores, or dry **skin**.

Hence the interested students of all groups can contact Dr. K.Sree Devi, Head of the Department of Botany on or before 15-12-2020.

Dr. K. Sree Devi
Signature

Signatures

1) V. Roja Rani III BZC

2) 

3) 

4)

5)

6)

7)



Time Time – Action Plan

Every Day Two Hours: Morning Session: 9-10 AM ; Evening Session: 4-5 PM

S.No.	Date	Topic
1	15.12.2020	Registration
2	16.12.2020 FN	Introduction to the <i>Aloe vera</i> plant
3	16.12.2020 AN	Classification and family - Key botanical features
4	17.12.2020 FN	Morphology of Plant
5	17.12.2020 AN	Geographical Distribution and Cultivation
6	18.12.2020 FN	Native regions and global distribution
7	18.12.2020 AN	Ideal climate conditions for cultivation
8	19.12.2020 FN	Traditional uses of <i>Aloe Vera</i>
9	19.12.2020 AN	Nutritional Composition
10	21.12.2020 FN	Analysis of key nutrients in <i>Aloe vera</i>
11	21.12.2020 AN	Health benefits of <i>Aloe Vera</i> consumption
12	22.12.2020 FN	Role of <i>Aloe vera</i> in wellness
13	22.12.2020 AN	Overview of different <i>Aloe vera</i> varieties
14	23.12.2020 FN	Selecting suitable varieties for cultivation
15	23.12.2020 AN	Propagation Techniques - Vegetative propagation techniques
16	24.12.2020 FN	Crop Management - Watering and irrigation strategies
17	24.12.2020 AN	Pest and disease management in <i>Aloe vera</i> cultivation
18	28.12.2020 FN	Determining the right time for harvesting
19	28.12.2020 AN	Harvesting techniques to preserve plant health
20	29.12.2020 FN	Post-harvest handling and transportation
21	29.12.2020 AN	Cleaning and washing leaves
22	30.12.2020 FN	Importance of hygiene in processing
23	30.12.2020 AN	Gel Extraction Methods - Techniques for extracting high-quality gel
24	02.01.2021 FN	Filtration and purification processes
25	02.01.2021 AN	Filleting methods for gel extraction
26	04.01.2021 FN	Natural preservatives for <i>Aloe vera</i> gel
27	04.01.2021 AN	Blending <i>Aloe vera</i> with other ingredients - Practical Session
28	05.01.2021 FN	Gel Preparation session 1 - Practical Session
29	05.01.2021 AN	Gel Preparation session 2 - Practical Session
30	06.01.2021 FN	Gel Preparation session 3 - Practical Session
31	07.01.2021 FN	Gel Preparation session 4 - Practical Session
32	08.01.2021 FN	Assessment and Feedback collection



STSN Govt. Degree College, Kadiri
Anantapuram, Andhra Pradesh



Certificate Course in “Aloe vera Gel Preparation” Syllabus

Module 1: Introduction to *Aloe vera* Plant

- Introduction to the *Aloe vera* plant
- Classification and family - Key botanical features
- Geographical Distribution and Cultivation
- Native regions and global distribution
- Ideal climate conditions for cultivation

Module 2: Uses and Significance

- Traditional uses of *Aloe Vera*
- Nutritional Composition
- Analysis of key nutrients in *Aloe vera*
- Health benefits of Aloe Vera consumption
- Role of *Aloe vera* in wellness

Module 3: *Aloe vera* Cultivation and Harvesting

- Overview of different *Aloe vera* varieties
- Selecting suitable varieties for cultivation
- Propagation Techniques - Vegetative propagation techniques
- Crop Management - Watering and irrigation strategies
- Pest and disease management in *Aloe vera* cultivation

Module 4: Harvesting *Aloe vera* Leaves

- Determining the right time for harvesting
- Harvesting techniques to preserve plant health
- Post-harvest handling and transportation
- Cleaning and washing leaves
- Importance of hygiene in processing

Module 5: *Aloe vera* Gel Processing

- Gel Extraction Methods - Techniques for extracting high-quality gel
- Filtration and purification processes
- Filleting methods for gel extraction
- Natural preservatives for *Aloe vera* gel
- Blending *Aloe vera* with other ingredients

STSN Government Degree College, Kadiri
Department of Botany

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Sl.no	Name	Course	Mobile No.	Signature
1	N. Lakshmi Prasanna	<u>III</u> B.ZC	6304789719	N. Lakshmi Prasanna
2	V. Chandrakala	<u>III</u> BZC	9392464103	V. Chandrakala
3	K. Jagadeesh	<u>III</u> BZC	6304807602	K. Jagadeesh
4	V. Bhaskar	<u>III</u> BZC	9505804211	V. Bhaskar
5	S. Sahel	<u>III</u> BZC	8919762858	S. Sahel
6	V. Reddamma	<u>III</u> B.ZC	8374408942	V. Reddamma
7	K. Anusha	<u>III</u> B.Z.C	9182877130	K. Anusha
8	P. Bhuvaneswari	<u>III</u> B.Z.C	9154446053	P. Bhuvaneswari
9	P. Sai Lakshmi	<u>III</u> B.Z.C	8919769097	P. Sai Lakshmi
10	D. Swetha	<u>III</u> B.Z.C	7382138600	D. Swetha
11	N. Kalpana	<u>III</u> B.Z.C	9502905640	N. Kalpana
12	A. Varalakshmi	<u>III</u> B.ZC	7674013648	A. Varalakshmi
13	M. Prashanthi	<u>III</u> BZC	9618668682	M. Prashanthi
14	P. Chaitra	<u>III</u> B.Z.C	7204303831	P. Chaitra
15	U. Kiran Kumar	<u>III</u> BZC	9966134433	U. Kiran Kumar
16	B. Niranjan Neelap	<u>III</u> B.Z.C	7569545914	B. Niranjan Neelap
17	C. Sai Teja	<u>III</u> BZC	9398631606	C. Sai Teja
18	T. Purushottam	<u>III</u> B.Z.C	6303807699	T. Purushottam
19	P. Balu	<u>III</u> B.Z.C	9346194931	P. Balu
20	K. Vijay Kumari	<u>III</u> B.Z.C	8919633228	K. Vijay Kumari

Assessment: Each Question carries 2 Marks

Multiple Choice Questions (MCQs) for Certificate Course in "Aloe Vera Gel Preparation"

1. What is the key botanical feature used for the classification of Aloe vera?
a) Leaf color b) Flower characters c) Stem thickness d) Geographical distribution
2. What are the ideal climate conditions for Aloe vera cultivation?
a) Cold and frosty b) Humid and tropical c) Arid and sunny d) Wet and rainy
3. Which of the following is NOT a traditional use of Aloe Vera?
a) Skin burns and wounds b) Digestive disorders c) Hair coloring d) Skin moisturization
4. What is the primary role of Aloe vera in wellness, based on its nutritional composition?
a) Boosting energy levels b) Enhancing skin elasticity c) Supporting digestion d) Strengthening bones
5. What is a key consideration when selecting suitable varieties for Aloe vera cultivation?
a) Leaf color b) Climate adaptability c) Flower size d) Stem thickness
6. Which propagation technique is commonly used for Aloe vera?
a) Offsets or pups b) Air layering c) Grafting d) Leaf cuttings
7. What is an essential aspect of crop management in Aloe vera cultivation?
a) Excessive watering b) Infrequent watering c) Watering without consideration for soil type d) Ignoring irrigation altogether
8. When is the optimal time for harvesting Aloe vera leaves?
a) Midday b) Late afternoon c) Night d) Early morning
9. Why is maintaining hygiene during the cleaning and washing of Aloe vera leaves crucial?
a) To enhance leaf color b) To prevent contamination c) To improve flavor d) To decrease harvesting time
10. What is a common method for Aloe vera gel extraction?
a) Boiling leaves in water b) Sun drying leaves c) Blending leaves with soil d) Crushing leaves manually
11. What is the purpose of filtration and purification processes in Aloe vera gel processing?
a) Increase shelf life b) Enhance flavor c) Remove impurities d) Decrease viscosity
12. Which of the following is commonly used as a natural preservative for Aloe vera gel?
a) Artificial colorings b) Sodium benzoate c) Vinegar d) Citric acid
13. Why is blending Aloe vera with other ingredients important in gel preparation?
a) To decrease shelf life b) To limit consumer choices c) To improve taste and aroma d) To simplify the production process
14. What is the primary advantage of vegetative propagation in Aloe vera cultivation?
a) Increased genetic diversity b) Faster plant growth c) Resistance to pests and diseases d) Enhanced flower size
15. Why is proper post-harvest handling essential for Aloe vera leaves?
a) To decrease transportation costs b) To preserve plant health c) To increase leaf color d) To limit processing time
16. What is the purpose of blending Aloe vera with other ingredients in gel formulation?
a) To decrease shelf life b) To improve product color c) To limit consumer choices d) To enhance product properties

17. Why is the cleaning and washing of Aloe vera leaves an important step in gel preparation?
 a) To increase leaf color b) To prevent contamination c) To decrease harvesting time d) To simplify processing methods
18. What is the significance of using proper harvesting techniques for Aloe vera leaves?
 a) Decrease in gel quality b) Preservation of plant health c) Increase in processing time d) Limitation of gel extraction methods
19. Which nutrient in Aloe vera contributes to its role in supporting digestion?
 a) Vitamin C b) Enzymes c) Fiber d) Amino acids
20. Why is selecting suitable Aloe vera varieties crucial for cultivation success?
 a) To limit genetic diversity b) To decrease crop yield c) To enhance flower size d) To adapt to specific growing conditions
21. Which health benefit is associated with Aloe vera consumption?
 a) Increased cholesterol levels b) Improved skin hydration c) Decreased energy levels d) Weakened immune system
22. Why is proper watering and irrigation important in Aloe vera crop management?
 a) To induce plant dormancy b) To enhance flower size c) To prevent overhydration and root rot d) To decrease pest resistance
23. What is a characteristic feature used in selecting suitable Aloe vera varieties for cultivation?
 a) Leaf color b) Flower size c) Stem thickness d) Geographical distribution
24. Aloe vera belongs to which family?
 a) Apiaceae b) Agavaceae c) Asphodelaceae d) Apocynaceae
25. Aloe vera gel is known for providing relief from sunburns due to the presence of:
 a) Caffeine b) Lignins c) Alcohols d) Phosphates

Answers:

1. b, 2. c, 3. c, 4. c, 5. b, 6. a, 7. b, 8. d, 9. b, 10. b, 11. c, 12. c, 13. c, 14. c, 15. b, 16. d, 17. b, 18. b, 19. b, 20. d, 21. b, 22. c, 23. a, 24. c, 25. b

Model Certificate:

Model Certificate:**STSN GDC, KADIRI.****DEPARTMENT OF BOTANY****CERTIFICATE**

This is to certify that, Mr./Miss. _____ has participated and completed a Certificate Course on "*Aloe vera* Gel Preparation" organized by the Department of Botany, S.T.S.N Govt. Degree College, Kadiri., Ananthapuramu Dist., A.P.

Course conducted from Dec 16th, 2020, to Jan 08th, 2021; (30 hours)

K. Sree Devi

Co-ordinator

Head, Department of Botany

Principal

Photos:

Aloe vera Gel Preparation





