



JANATA SHIKSHAN SHANSTHA'S
**KISAN VEER MAHAVIDYALAYA
WAI**



Department of Zoology
Certificate Course in Sericulture

Number of Papers: 02 (60 Marks)
Number of Practical: 01 (40 Marks)
Onsite Visit To District
Sericulture Center, Wai

Eligibility: B. Sc. I/II/III Appear
Intake Capacity: 40
Duration: 06 Months
Fees: Rs.500/- only



Objectives:

1. Acquaintance with the fields in Applied Zoology
2. Acquaintance with basic information in Sericulture
3. Developing theoretical and practical knowledge in rearing Silkworms
4. Introduction of importance of small scale industry

Advantages of Sericulture

- High employment potential for local people.
- Women friendly Occupation.
- Provides Vibrancy to Rural Economy
- Readily available market
- Eco-friendly Activity.
- Low Investment, High Returns.
- They are non-hazardous to the environment.

Contact

Dr. Hanamantrao D. Kanase
(Course Coordinator)
Cell No: 9922010210

Mr. Ravindra V. Bakare
Associate Professor & Head
Cell No: 9975087300

Head
DEPARTMENT OF ZOOLOGY
Kisan Veer Mahavidyalaya
Wai 412803

Department of Zoology
Kisan Veer Mahavidyalaya, Wai (Dist. Satara)

Certificate Course in Sericulture
Year 2020-21

Course fee : Rs.500/- per student

Course duration : July – August OR August - September

Syllabus

Paper I **Silk moth Morphology, Types and Life Cycle**

1. History of Sericulture
2. Types of Silk moth and relationship
3. Habits and habitat, Morphology and classification of Silk moth
4. Life cycle

Paper II **Rearing and Cultivation of Silk moth**

1. Cultivation of mulberry plant
2. Rearing of silk moth
 - a. Housing
 - b. Feeding and its maintenance
 - c. Disease prevention techniques
 - d. Reeling and raw silk
 - e. Application of sericulture as a cottage industry

Practical

- ❖ Study of stages in life cycle of silk moth
- ❖ Cultivation of mulberry plants
- ❖ Rearing of silk worms
- ❖ Sericulture Economics

Nature of Question Paper: Multiple Choice Questions

Short Answer Questions

Short Notes



Head
DEPARTMENT OF ZOOLOGY
Kisan Veer Mahavidyalaya
Wai 412803

Department of Zoology,
Kisan Veer Mahavidyalaya, Wai
Date: 20/06/2020

Notice

Students of B. Sc. Part III (Zoology) are hereby informed that Certificate Course in 'Sericulture' for B. Sc. III will commence from 1th July 2020 onwards. The duration of course will be 3 months.

Examination:

The examination will be conducted for paper I and II and practical as 50 marks each. The nature of questions will be multiple choice and short answer type. The number of periods calculated for the two months course would be 52.

The course periods and practicals will be conducted on Friday and Saturday mentioned in regular time table.


Head,
Department of Zoology
DEPARTMENT OF ZOOLOGY
Kisan Veer Mahavidyalaya
Wai 412803



**Janata Shikshan Sanstha's
KISAN VEER MAHAVIDYALAYA, WAI
Department of Zoology
"Certificate Course in Sericulture"
Course Report -2020-21**

The department of Zoology had decided to conduct a certificate course in departmental meeting. The title of the course is "Certificate Course in Sericulture" was finalized. The notification and advertisement was made through our college website and Brochure of the course was uploaded on the college website. The course was started on 1 July 2020. The time-table was displayed on the department's notice board. 26 students were admitted for the said course. Regular lectures and practical were conducted according to the time-table. Examination of the said course was conducted and certificates were issued to all the passed students. Students gained the knowledge about sericulture and more about cottage industry. Certificate along with the B.Sc. degree. The supportive staff and the administration of the College and specially Hon. Principal supported a lot.

The record of the course has maintained in the department. One copy had given in IQAC cell and same had been uploaded on college website.

This is to be noted that one of our student from academic year 2017-18 Mrs. Prajakta Nale has started her own business in sericulture and is currently earning about Rs. 50,000/- pm by production of silk cocoons.

Dr. E.B. Bhalerao

I/C Principal

Dr. H.D. Kanase

Course Co-ordinator

Prof. R.V. Bakare

**Head
DEPARTMENT OF ZOOLOGY
Kisan Veer Mahavidyalaya
Wai 412803**

Janata Shikshan Sanstha's
KISAN VEER MAHAVIDYALAYA, WAI
Department of Zoology
Academic year 2020-21

B. Sc. III
Students admitted the self-financed course in Sericulture

	Name
	Shinde Sayali Sayaji
	Jhaveri Dhruvi Hiten
	Shweta Chandrakant Jadhav
	Chavan Komal Hindurao
	Ranjane Vaibhav Sunil
	Chavan Shivani C.
	Jadhav Shital Anil
	Jamdade Vidya Ramesh
	Dere Anisha Ajit
	Chavan Rutuja Ashok
	Gole Shweta Sampat
	Wagh Shreya Hemant
	Jadhav Ankita Popat
	Babar Ankita Sunil
	Jonde Surbhi Kashinath
	Bodare Rani Sunil
	Shejwal Aakanksha Shrirang
	Dhavale Priyanka D.
	Ghatge Siddhi Keshavrao
	Chavan Charukeshi Umesh
	Killedar Rutuja Ranveer
	Shivani Sunil Chavan
	Kumbhar Ankita Sanjay
	Shinde Manisha Rajendra
	Bhilare Sanchita Sadashiv
	Bhosale Kajol Vijay



R. V. Bakare
Head
DEPARTMENT OF ZOOLOGY
Kisan Veer Mahavidyalaya
Wai 412803

PRINCIPAL

Department of Zoology
KISAN VEER MAHAVIDYALAYA, WAI
Year: 2020-21

Semester -I, III, V

Class: B.Sc. I, II & III

Sr. No.	Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	07.30 - 08.18						B.Sc. I RRT
2	08.18 - 09.06	B.Sc. II HDK B.Sc. III RVB	B.Sc. III RVB	B.Sc. III RRT	B.Sc. I RRT B.Sc. II RVB B.Sc. III HDK	B.Sc. III RRT	B.Sc. III HDK
3	09.06 - 09.54	B.Sc. III RRT	B.Sc. III RVB	B.Sc. I RVB B.Sc. II HDK B.Sc. III RRT	B.Sc. III HDK	B.Sc. I HDK B.Sc. III RRT	B.Sc. III RRT
4	09.54 - 10.42	B.Sc. II HDK B.Sc. I RRT	B.Sc. II HDK B.Sc. I RRT			B.Sc. II RVB B.Sc. III (Seri.) <u>HDK</u>	B.Sc. II RVB B.Sc. III (Seri.) <u>RVB</u>
10.42 - 11.00		R	E	C	E	S	S
5-8	11.00 - 02.12	I - (I+II) RRT II - (III+IV+VIII) 1 HDK 2 III RVB	I (IX+X) HDK II (III+IV+VIII) RVB2 1 III RRT	I - (V+VI) RRT II/(V+VI) 1 RVB 2 III HDK	I - (VII+VIII) RRT II - (V+VI) 2 1 HDK III XYZ	I - (III+IV) RRT II - (I+II+VII) 1 HDK 2 III - (Seri.) <u>RAT</u>	I - (XI+XII) RRT IV/(I+II+VII) 2 1 RVB III - (Seri.) <u>RRT</u>


Head, Department of Zoology
DEPARTMENT OF ZOOLOGY
Kisan Veer Mahavidyalaya
Wai-412803

Janata Shikshan Sanstha's
KISAN VEER MAHAVIDYALAYA, WAI
Department of Zoology
Academic year 2020-21
Sericulture Attendance

Sr. No	Name	4/9	5	11	12	18	19	25	26	30	1/10	10/16	17	23	24
1	Shinde Sayali Sayaji	P	P	P	P	P	P	P	P	A	P	P	P	P	P
2	Shweta Chandrakant Jadhav	P	P	P	P	A	P	P	P	P	P	P	P	P	P
3	Ranjane Vaibhav Sunil	P	P	P	P	P	A	P	P	P	P	P	P	P	P
4	Chavan Komal Hindurao	P	P	P	A	P	P	P	P	P	P	P	P	P	P
5	Kumbhar Ankita Sanjay	P	P	P	P	P	P	A	P	P	P	A	P	P	P
6	Jhaveri Dhruvi Hiten	P	P	P	P	P	P	P	P	P	P	P	P	A	P
7	Chavan Shivani C.	P	P	P	P	P	P	A	P	P	P	P	P	P	P
8	Jadhav Shital Anil	P	P	P	P	P	A	P	P	P	P	P	P	P	P
9	Jamdade Vidya Ramesh	P	P	P	P	P	P	P	P	A	P	P	P	P	P
10	Dere Anisha Ajit	P	P	P	P	P	P	P	P	P	A	P	P	P	P
11	Bhosale Kajol Vijay	P	P	P	P	P	P	P	P	A	P	P	P	P	P
12	Chavan Rutuja Ashok	P	P	P	P	P	P	P	P	P	P	A	P	P	P
13	Gole Shweta Sampat	P	P	P	A	P	P	P	P	P	P	P	P	P	P
14	Wagh Shreya Hemant	P	P	P	P	P	P	P	P	P	P	P	P	A	P
15	Jadhav Ankita Popat	P	P	P	P	P	P	P	P	P	P	A	P	P	P
16	Babar Ankita Sunil	P	P	P	P	P	P	P	P	P	P	P	P	A	P
17	Jonde Surbhi Kashinath	P	P	P	P	P	P	P	P	P	P	P	P	A	P
18	Bodare Rani Sunil	P	P	P	P	A	P	P	P	P	P	P	P	A	P
19	Shejwal Aakanksha Shrirang	P	P	P	P	P	P	P	P	P	P	P	P	P	A
20	Dhavale Priyanka D.	P	P	P	P	P	P	P	P	A	P	P	P	P	A
21	Ghatge Siddhi Keshavrao	P	P	P	P	P	P	P	P	P	P	A	P	P	P
22	Killedar Rutuja Ranveer	P	P	P	P	P	P	P	P	P	P	P	P	A	P
23	Shivani Sunil Chavan	P	P	P	P	P	P	P	A	P	P	P	P	P	P
24	Chavan Charukeshi Umesh	P	P	P	P	P	P	P	P	P	A	P	P	P	P
25	Shinde Manisha Rajendra	P	P	P	P	P	P	P	P	P	P	P	P	A	P
26	Bhilare Sanchita Sadashiv	P	P	P	P	P	P	P	P	P	P	P	P	A	P


Teacher Incharge


Head
DEPARTMENT OF ZOOLOGY
Kisan Veer Mahavidyalaya
Wai-412803

Janata Shikshan Sanstha's
KISAN VEER MAHAVIDYALAYA, WAI
Department of Zoology
Academic year 2020-21
Sericulture Attendance

Sr. No	Name	4/7	10/7	11/7	12/7	13/7	20/7	25/7	31/7	7/8	8/8	14/8	21/8	28/8	29/8
1	Shinde Sayali Sayaji	P	P	P	P	P	P	P	P	P	P	P	P	P	P
2	Shweta Chandrakant Jadhav	P	P	P	P	P	P	P	P	P	P	P	P	P	P
3	Ranjane Vaibhav Sunil	P	P	P	P	P	A	P	P	P	A	P	P	P	P
4	Chavan Komal Hindurao	P	P	A	P	P	P	P	P	P	P	P	P	P	P
5	Kumbhar Ankita Sanjay	P	P	P	P	P	P	P	P	P	P	P	P	A	P
6	Jhaveri Dhruvi Hiton	P	P	P	P	P	P	P	P	P	P	P	P	P	A
7	Chavan Shivani C.	P	P	P	P	P	P	P	P	P	A	P	P	P	P
8	Jadhav Shital Anil	P	P	P	P	P	P	P	P	P	P	P	P	A	P
9	Jamdade Vidya Ramesh	P	P	P	P	A	P	P	P	P	P	P	P	P	P
10	Dere Anisha Ajit	P	P	P	P	P	A	P	P	P	P	P	P	P	P
11	Bhosale Kajol Vijay	P	P	P	P	P	A	P	P	P	P	P	P	P	P
12	Chavan Rutuja Ashok	P	P	P	A	P	P	P	P	P	P	P	P	P	P
13	Gole Shweta Sampat	P	P	P	P	P	A	P	P	P	P	P	P	P	P
14	Wagh Shreya Hemant	P	P	A	P	P	P	P	P	P	P	P	P	P	P
15	Jadhav Ankita Popat	P	A	P	P	P	P	P	P	P	P	P	P	P	P
16	Babar Ankita Sunil	P	P	P	P	P	A	P	P	P	P	P	P	P	P
17	Jonde Surbhi Kashinath	P	P	P	P	P	P	P	A	P	P	P	P	P	P
18	Bodare Rani Sunil	P	P	P	P	P	P	A	P	P	P	P	A	P	P
19	Shejwal Aakanksha Shrirang	P	P	P	P	P	P	P	P	P	P	P	P	P	A
20	Dhavale Priyanka D.	P	P	A	P	P	P	P	P	P	P	P	P	P	P
21	Ghatge Siddhi Keshavrao	P	P	P	P	P	P	A	P	P	P	P	P	P	P
22	Killedar Rutuja Ranveer	P	P	P	P	P	P	P	P	P	P	A	P	P	P
23	Shivani Sunil Chavan	P	P	P	P	P	A	P	P	P	P	P	P	P	P
24	Chavan Charukeshi Umesh	P	P	P	P	P	P	P	A	P	P	P	P	P	P
25	Shinde Manisha Rajendra	P	P	P	P	P	P	P	P	P	P	A	P	A	P
26	Bhilare Sanchita Sadashiv	P	P	A	A	P	P	P	P	P	P	P	P	P	P


Teacher In Charge


Head
Head
DEPARTMENT OF ZOOLOGY
Kisan Veer Mahavidyalaya
Wai 412803

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Serculture Exam Bsc3 March 2022

Questions Responses Settings

Total points 50

The main protein present in silk filament is..?

- (a). Fibroin.
- (b). Sericin.
- (c). Both a and b.
- (d). None of the above

Pebrine is the ... disease of B. mori?

- a). Viral.
- (b). Bacterial.
- (c). Fungal.
- (d). Protozoan.

The munga silkworm is specific to..?

- (e). Rajasthan.

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Sericulture Exam Bsc3 March 2022

Questions Responses Settings Total points: 50

Question Paper

Description (optional)

Which is the young age silkworm?

- a) Pupa.
- (b). Adult.
- (c). Spinning worms.
- (d). Young.

... and ... are the two main producer of silk?

- (a). China, Japan.
- (b). China, Burma.
- (c). China, India.
- (d). China, Brazil.

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Sericulture Exam Bsc3 March 2021

Questions Responses Settings

Total points: 50

The munga silkworm is specific to...?

- (a). Rajasthan.
- (b). Tamil Nadu.
- (c). J & K.
- (d). Assam.

Major pest of silk worm..

- (a). Wasps.
- (b). Uzi fly.
- (c). Nysolynx.
- (d). All of the above.

The silk of silk worm is a..?

The silk of silk worm is a..?

- (a). Separate filament.
- (b). Continuous filament.
- (c). Several filament.
- (d). Discrete filame

The vision of central silk board is..?

- (a). "Strengthen levels of efficiency through a commitment to quality".
- (b). "See india emerge as the leader in the world market for silk".
- (c). To improve productivity in all stages of silk production".
- (d). None of the above.

The central silk board was established in..?

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Sericulture Exam Bsc3 March 2021

Questions Responses Settings

Total points: 50

The central silk board was established in...?

- (a). 1946.
- (b). 1947.
- (c). 1948.
- (d). 1959.

Central silk board is located at/in...?

- (a). Raipur.
- (b). Jannagar.
- (c). Delhi.
- (d). Bangalore.

Which is the post cocoon activity?

- (a). Stifling.

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Sericulture Exam Bsc3 March 2021 ☆

Questions Responses 24 Settings Total points: 50

Which is the post cocoon activity?

- (a). Stifling.
- (b). Reeling.
- (c). Brushing.
- (d). All of the above.

Which is domestic species of silkworm?

- (a). Bombyx brunnea.
- (b). Bombyx mandarina.
- (c). Bombyx sinensis.
- (d). Bombyx textor.

There are ... major types of silk of commercial importance in India?

- (a). Three.
- (b). Four.

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Sericulture Exam Bsc3 March 2022 ☆

Questions Responses 64 Settings Total points: 50

There are major types of silk of commercial importance in India?

- (a). Three.
- (b). Four.
- (c). Five.
- (d). Six.

What is sericulture?

- a) Rearing of fishes
- b) Rearing of silkworm
- c) Rearing of birds
- d) Rearing of cockroach

Which of the following varieties of silk is not produced in India?

Sericulture Exam Bsc3 March 2022

Questions Responses Settings Total points: 50

Cocoon is formed by how many pairs of glands?

- a) Two
- b) Three
- c) Four
- d) One

Raw silk is prepared by degumming.

- a) True
- b) False

Silk is produced by

- (a) cocoon
- (b) adult moth

Which of the following silk is mainly produced in Assam?

- a) Arundi silk
- b) Natural silk
- c) Muga silk
- d) Tassar silk

How many stages are there in the life cycle of a silkworm?

- a) 3
- b) 4
- c) 5
- d) 6

Cocoon is formed by how many pairs of glands?

- a) Two



Sericulture Exam Bsc3 March 2022

Questions Responses Settings

Total points: 50

What is the life span of an adult 'Bombyx mori' ?

- a) 2 days
- (b) 3-4 days
- (c) 6 days
- (d) 8 days

District Sericulture Centre Located In Satara?

- Wai
- Phaltan
- Khandala
- Medha

Certificate Course in Sericulture: 2020-21

Mark list

Name of the Student	Roll Number	Seat number	Score
Shreya Hemant Wagh	177	35468	14 / 50
Ankita Sanjay Kumbhar	100	35463	10 / 50
Ghatge Siddhi Keshavrao	54	35454	16 / 50
Manisha Rajendra Shinde	102	35466	36 / 50
Chavan Shivani Sunil	202	35451	28 / 50
Vidya Jamdade	111	35459	30 / 50
Kajol Vijay Bhosale	275	42259	32 / 50
Ankita Popat Jadhav	184	35456	34 / 50
Dere Anisha Ajit	46	35452	32 / 50
Gole Shweta Sampat	228	35455	30 / 50
Chavan Komal Hindurao	101	35448	28 / 50
Jadhav Shital Anil	104	35457	34 / 50
Babar Ankita Sunil	73	35444	38 / 50
Jonde Surabhi Kashinath	72	35461	38 / 50
Shinde Sayali Sayaji	45	35467	46 / 50
Shejwal Aakanksha Shrirang	44	35465	46 / 50
Bodare Rani Sunil	152	35446	46 / 50
Shweta Jadhav	227	35458	38 / 50
Chavan Rutuja Ashok	235	35449	36 / 50
Dhavale Priyanka D.	237	35453	36 / 50
Killedar Rutuja Ranveer	248	35462	18 / 50
Shivani C..Chavan	103	35450	42 / 50


Head, Department of Zoology

Head
DEPARTMENT OF ZOOLOGY
Kisan Veer Mahavidyalaya
Wai 412803

Sericulture Report

Introduction:-

Sericulture or silk forming is the rearing of silkworms for the production of silk. Although there are several commercial species of silkworms, *Bombyx mori* is the most widely used & intensively studied silkworm. Sericulture has become one of the most important cottage industries in the number of countries like China, Japan, India, Korea, Brazil, Italy & France.

Today, China & India are two main producers together. Silkworms larvae are fed by mulberry leaves & after four moults climb a twig placed near them & spin their silken cocoons. This process is achieved by worm through a dense fluid secreted from its structural glands, resulting in their fibre or cocoon. The silk is continuous filament fibre consisting of fibroin protein, secreted from two salivary glands in the head of each larva & a gum called sericin which cements the two filaments together.

The sericin is removed by placing the cocoons in hot water which frees silk filaments & readies them for reeling. This is known as the degumming process. Immersion in hot

objectives .

1) Sericulture provides suitable silk fibres to manufacture the various kinds of garments.

2) Sericulture is an excellent cottage industry improving economic status along with the maintenance of environment equilibrium in rural areas.

3) Sericulture industry requires low capital investment it can be done with regular farming as a cottage industry.

4) Sericulture industry provides employment for men & women from rural areas of different age categories.

Study site

To study Sericulture we have visited District sericulture centre wai on 23rd January 2020. In this centre the Government officials have provided us very useful information regarding the cultivation of mulberry rearing techniques of silk moth & ideal condition, required for the better maintainance of larvae & production of good quality cocoon. Many farmers from Satara district, Koregaon, Taluka have taken the initiative & involved in silk production along with their traditional farming.



Page No.:

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गणेशाय नमः

Date:

water also kills silkworm pupae. single filaments are combined to form thread. this thread is drawn under tension through several guides & wound onto reels. the thread may be plied together to form yarn. After deying the raw silk is packed according to quality manufacturing more than 60% of the world production.



Soil & climatic conditions

Mulberry can grow practically on any type of land except on very steep lands. Good growths, however are obtained when it is raised on either flat land. Mulberry grows in a wide range of soils, but best growth is obtained in loamy to clayey loam soils - The mulberry plants can tolerate slightly acidic condition in the soil. In the case of too acidic soils with pH belows necessary corrective measures through application of dolomite or lime should be adopted. In case of alkaline soils, application of gypsum should be resorted to for correction of soil mulberry alkalinity. Since, mulberry is a deep rooted plant, the soil should be sufficiently deep upto about two feet in depth. In respect of elevation mulberry thrives well upto about 4000 feet. about growth will be ~~relate~~ retarded because of colder temperature.



1) Cultivation

Mulberry is a hardy plant capable of thriving under a variety of agroclimatic conditions. plant cultivated by 'patta method' (2x3)x5 Feet & plant population is 100%. It also give 8 metric tons cow dung manure.

only cultivate, CSR certified seeds for planting. At the same time, it is also called sensitive responding extremely well to optimum agricultural inputs but shows practically no growth when plant nutrients & moisture begin to operate as limiting factor. This is evident from fact that under the poor rainfall conditions of 25-30 (625-750mm) prevailing in south India, the current leaf yield is of the order of only 3000-3500 kgs/hectore where as under assured irrigation & appropriate fertilizer application, it can be stepped ~~into~~ upto 30,000 kgs or so or nearly ten times. Further mulberry under south Indian condition unlike in temperate regions like Japan, Korea & USSR give continuous growth almost throughout year because of optimum temperature condition & good sunshine available.

2) Rearing

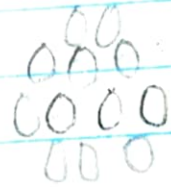
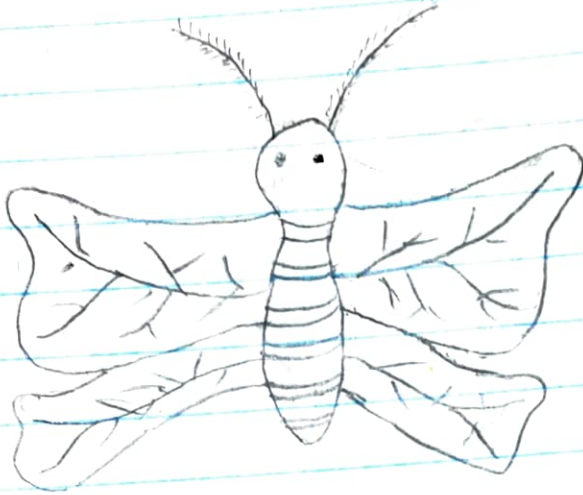
The silkworm larvae after 12-13 days will be segregated into various age groups. The larvae at this stage change body colour at this stage & do not take any food. Those worms will be separated & put into a plastic body/tray covered with papers & a wire mesh net. The light yellow coloured larvae (after taking required amount of feed after approximately 10-12 days of initiation of larval stage) are ready for cocoon stage are placed on the net. Before placing the cocoons, the tray is washed with bleaching powder to protect the worms from infection. The cocoon stage is arrived in 5 days.

3) Economy

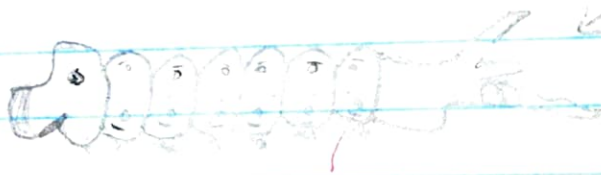
Sericulture provides a continuous income throughout year. An economic analysis of mulberry sericulture farmers was studied. Cost & return structure from cross-breed (pure Mysore X SR₂) silkworm rearing was estimated. The study has shown that net returns from one acre of mulberry worked out to Rs. 52,200.00/year. The cost-benefit ratio of sericulture was worked out to be significantly higher. Detailed study of economics revealed that the major economic factor contributing for total cost in structure was labour which was 32.54%, for silkworm rearing 13.95%, for mulberry production. Another important them was cost of equipment for silkworm rearing which is about 11.27%.

The possibility of obtaining 1,600 kg of bivoltine cocoons from rearing 4000 layings & by producing 30,000 kg of leaves per hectare. The cost of leaf & cocoon production & net returns were estimated at Rs. 6000.00 Rs 10,000 & 28,800 respectively per hectare by using improved techniques.

Life cycle of Mulberry silkworm



Eggs



Mature silkworm



Cocoon



Cocoon L.S.

Fig - Life cycle of Mulberry silkworm

The stages of production are as follows-

- 1) The silk moth lays thousand of eggs.
- 2) silk moth egg hatch & larvae feed on mulberry leaves.
- 3) first, it weaves a net to hold it self.
- 4) Next, it swings it's head from side to side in form of number '8'.
- 5) silk solidifies when it comes in contact with the air.
- 6) silkworms spin approximately .1 mile of filament & completely enclosed itself a cocoon in about two or three days but due to quality restrictions the amount of usable silk in each cocoon is small. As a result 5500 silkworms are required to produce 1 kg of silk.
- 7) silk is obtained from undamaged cocoons by brushing the cocoons. To find out side end of the filament.
- 8) silk filament are then wound on reel. one cocoon contains approximately 1000 yards of silk filaments. The silk at this stage is known as raw silk. one thread consist of upto 48 individual silk filaments.

JANATA SHIKSHAN SANSTHA'S

KISAN VEER MAHAVIDYALAYA, WAI



DEPARTMENT OF ZOOLOGY (2020-21)

Certificate

This is to certify that, Shri / Smt.....
of class B.Sc. part III has successfully Completed the Self-Aided Certificate
Course in “ Sericulture” conducted by the Department of Zoology during the
academic year 2020-21.


Head,
DEPARTMENT OF ZOOLOGY
Kisan Veer Mahavidyalaya
Wai 412803

Principal



Silkworm Seed Preservation
COLD STORAGE PLANT
NSSO, CSB, HOSUR - 635 126
Regn. No. TN/01/RSP/0013

TEST HATCHING SAMPLE

LOT No. : 89

RACE : D.H

LAI D ON :

TREATED ON /
RELEASED ON : 13-1-2019

P.O.H.
HATCHED ON : 26-1-2019

% OF HATCHING :

Sapthasini • Basantini

