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INDIGENOUS KNOWLEDGE OF SILKWORM REARING AND IT'S UTILIZATION IN REGIONAL PARTS OF ASSAM.

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Abstract :

The History of sericulture industry of Assam is Very old. Now a days this industry has spread a great impact over the economy of India. Through this research paper we can discuss and study about the life cycle of silkworm , or traditional method of silkworm rearing in sericulture industry in Assam specialy in the regional location of Dhakuakhana sub- Division and study on the several diseases of larva of silkworm in sericulture.

Introduction :

Development of artwork has been ruled over in our society from ancient time in different manner. Generally the meaning of the artwork Mechinary or hand made work equipment. Now a days most of places of Assam starting some Small industries of Art and culture.This kind of industries help us to reduce the unemployment problem in our society. It is seem that is many books or novels or inscription of Indian and Assam's progress and development of Artworks industries since long period of time. In Ahom all Artwork is combine together and named is 'Kutir Art' or 'KutirSilpa'. In Ahom ruled in Assam several people are introduce for different Artwork at that time so according to their work they gave there some designation of Kamar, Komar, Sonari, Yogi, Teli, Khanikar,Bahoi etc. Every section has their own department officer, who looks after the work properly. The mostly develop and popular artwork of Assam presently as Bamboculture, BastraSilpa, Belt metal Industry, musk industry, soil and metal industry etc. Sericulture industry is mostly remarkable among

them. In northeastern part of India the sericulture industry is very popular and well development. Assam, Meghalaya and Arunachal Pradesh are the Sericulture State of North East. Sericulture is not favorable for all environment. It requires a healthy or favourable environment. Polluted place or over precipitation area not suitable for Sericulture Industry.

Objectives : The objectives of the paper is to

1. To discuss about the life cycle of Silkworm.
2. To study about the traditional method of Silkworm rearing in Sericulture Industry.
3. To identify the several diseases of larva.

Methodology and Materials: To analyze the collected data, we have used relatives analysis techniques and data collected from filed work. For the convenience of the discussion analytical method is adopted.

Result and discussion:

Life cycle of Silkworm: The female worm generally egg laying in the evening period. One female worm lays egg continuously into 5-6 days. But we may perverse the egg from third days otherwise the size of the larva my inbalance. That why sometime we not get well develop larva. In summer, a female can lay egg 100-150 or in autoum it increses up to 200 egg. But according to Sericulture specialist Mr. JitulSaikia the female lay egg approximately 260-325 no. before 1980. The shaped of the egg is oval shaped, which length in 2·4-2·7 mm and weight 0.0007. m.g. after three days the silkflycutted and attest a bambo made equipment which name is 'Kharika'. It is usually used after removing the earlier 'Kharika' from the Sericulture area.

After using 'Kharika' uptothree to four days some ash like particles covered the surrounding and than the larva becomes black and yellowish sign on their body. The head of the larva has tubercle. The first skin removing of the larva is called 'ashfly' locally itscalled 'SaiUra'. Its length is 0.7cm-1.2cm and than weight of the larva becomes 0.0069m.g-0.007m.g. after 3-4 days the secondly remove the skin of the larva. It is commonly called as 'Dui Uluwa'. It may take 6-8 days in winter season. It'scolour shines asyellow, than its hight is 1.4-1.8 c.m. and weight 0.083-0.912gm. at this time the tubercle of the head becomes blue in colour. And than we putting down the 'Kharika'. In regional side of Dhakuakhana it is a belief that the person only remove the Kharika who firstly introduced the Kharika in the 'Somoni'. Some people remove the Kharika after 'Tiniuluwa' period. The day when Kharika remove from the 'Somoni' there has a traditional, occasion to worship god and distributed 'Milk- rice' commonly called 'Khir' or in Assamese it call 'Payokh' to some devotee of old ages.In 'TiniUluwa' stage if takes time for 7-10 days in winter. It that period the larva becomes Green in colour. Its Length 1.8-2.5 and weight 0.44-0.632 gm. The tubercles of the larva becomesBringle in colour. For the safety of the larva from fly- insect mosquito and other harmful organism we may take mitigation measures to use Banana leaf and bounded with kher with mixer of as and send.

After the 'Tiniuluwa' process in winter the female introduced in between 10-13 days. The tubercle presents in the head becomes 'Red' colour. At that time the height of the larva is 2.5-3.5cm and weight 2.00gm-3.5gm.The body colour

of the larva becomes dense green in colour. According to 'ResomSarthi' book for feeding of one larva is required of 17.k.g. of leaves.

Generally it is not necessary to touch the larva. For transferring form one tree to another, than we use use generally triangle Bambo made plate which called as 'tinikuniyaSalani'. The weak and irregular larva should remove from the group and set up under soil to dig a whole.

The juma stay after the introduce of female larva. It means the 'Poka' in form in between 8-9 days, than the larva becomes 4 c.m. in lenth and 4.121-5.213 gm in weight. In this stage the larva domain side of the larva become dense green and upper side becomes light green. In this stage the tubercles present into every third part of the body. Adult larva may be divided into head thorax and abodomain. The tubercle stage becomes chocolate in colour. The larva move downwards from the tree when the Poka from then the larva become filed and rough, 'Poaka' from mainly in evening period at this time larva remove evening period. At this time larva remove everything from their body as waste urine. Like is called 'Jalam' There is a jelly like substance when it some how touch with cloths than it is not remove easily.

Method of Silkworm Rearing:-

Regional people of the Dhakuakhana themself make their own Silkfibre. Basically the use to.The larva and intermediate stage of larva and intermediate stage of larva and imago, commonly known as 'Leta'upto 350m.-45m.in length. And when they cut the 'Leta' upto 4000-5000 no.s then after they gel 1k.g of fibre.Tere are some special process use to Silkworm, where they firstly killed the 'Leta in the people of Dhakuakhana they use mainly two kinds of process.

1) Insole Method:
In this type of method the 'Leta' of Silkworm insole in sum ray for 2-3 days. It is a Killing method of 'Leta'

2) Using fire- smoke method :-

Using thes type of method is very effective for shining of yarn. In this method using three iron rod in a trainger manner and putting a steel netabove it and introduce a flame bellow in net. After that the 'Leta' which is roasting with the net with fire smoke and killed it. This method is usually seen in regional people of Dhakuakhana. Instead of this technique now a dayes in using a warm wind flow chamber, which is a modern technique to kill the 'Leta' but in Dhakuakhana's people use the earlier method as well.

After completion of killing Leta the yarn are to cut to cut the yarn to local people use3 gm soda in 1 liter boiling water. They also use Matimahkhar, Mustered khar with soda khar. To increase the peach of the yarn, they use JabaFllower Leaves (HibiscusRojacinensis) Koyabijolors leaf for increase the brightness of the colour of the yarn, the use Kalkhar, Senduri trees leave or brinjalleaf

Boiling 'Leta are use to make yarn when it is in wet condition. In Dhakuakhana the people use to cut the yarn in local equipment named 'Matixal', which is commonly known as 'Bhauri' But now a days people use some modern equipment such as- RMRS electric machine, etc. In Xuwalkuchi,

in Lower Assam they use a machine named 'Fir' machine. Where also 8-10 no. of fiber united and putting it to the machine. To collect speace yarn, people oftenly use Bhagalpur spinning Mill.

Diseases occurs in Silkworm larva:

(a) Grassarie: Due to this type of diseases metamorphosis of the larva not exist. It is cause by one kind of virus commonly it is known as 'Fulla' disease. This Disease may create because of undesirable feeding or unfavorable environment. So that why we may clear the silkworm rearing house before use

(b) Muscardine fungal disease: In this type of disease some jelly like liquid substance release from month and anus of the larva. This Disease may occur because of the fungal infection.Due to infection of this disease the larva because very weak and later it dies. So it is very important to maintain the silkworm rearing house as fungal free zone.

(c) Pebrine : due to infection of this disease the larva shines some black sport on their body general it is occurs because of an unicellular paresitenamed 'Nosema' Pre Mitigation measures in very important for pebrine disease.Before we collect the egg many exist is necessary to examine the egg with microscope.

(d) Flacherie : in Flacherie diseases of silkworm the larva becomes damage and decay. It is occurs because of viral and bacterial infection. Because of this the larva becomes weak and paralyse,Commonly it is seen in summer season. So in the larva may not stay in sun ray or rain in the very first period of theirs life cycle. It is a communicable disease.

Despite this, several insect birds may harm the larva, Some harmful organism are mosquito, bee, ant, cockroach, rat, bat, monkey etc. now a days use of medicine of the tea state is the biggest threatening for silkworm. In 2017, several silkworms died because of this medicine in Dhakuakhana, Assam, Instead this the Silkworm rearing farmers sufferswith lot of struggle.

Conclusion:

It is conclude that the prospect and viability of the commercialization of indigenous knowledge in the form of sericulture in DhakuakhanaLakhimpur district of Assam are immense along with various challenges in the present mark condition. Sericulture hold the tremendous scope for development of the rural economy of the region as it has the advantages of close association with the traditional and culture of local people, availability of abundant nature grown host plant, eco-friendly production process and skilled household in rearing, reeling and weaving. Some common problems associated with sericulture are low price of silk teeding leaves, damage the larva. Leaves in very carly or its growing stage. So the future of sericulture is dependent on their food plants, hense it becomes our prime thrust to protect these plant species not only to protect the silkworm, but also to save our rich biodiversity from future disclosure.

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