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Optimizing mountages selection for better pre and post cocoon performance in mulberry silkworm

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Abstract

Mountages serve as essential devices for providing platforms on which mature silkworms spin their cocoons. Farmers employ different mountage types, often utilizing locally available materials, though each has specific limitations. The present study evaluated five mountages Rotary Collapsible, Mulberry Twig, Egg Tray, Paddy Husk, and Pinus for their impact on cocoon and post-cocoon parameters. Results revealed that Paddy Husk Mountage produced the highest single cocoon weight and maximum average filament length (93.33), whereas Rotary Collapsible Mountage recorded the lowest. The non-breakable average filament length was highest in Pinus Mountage (78.66) and lowest in Rotary Collapsible Mountage (71.33). In terms of average filament denier, Rotary Collapsible Mountage showed the highest (2.61) while Pinus Mountage exhibited the lowest (2.33). Based on cocoon quality and post-cocoon traits, Paddy Husk Mountage emerged as the most effective, being inexpensive, widely available, and superior in performance compared to other mountages.

Keywords: Silkworm rearing, mountages, cocoon quality, filament length, paddy husk

Introduction

Sericulture is the scientific practice of silk production through the rearing of silkworms, primarily *Bombyx mori* L. Due to its luster, softness, strength, and durability, silk is regarded as the “queen of textiles.” Mulberry sericulture involves mulberry cultivation, silkworm rearing, cocoon production, reeling, and weaving. Although sericulture originated nearly 5000 years ago in China, it continues to play an important agro-industrial role worldwide. In Jammu and Kashmir, sericulture is practiced in 20 districts, with Anantnag, Kupwara, Pulwama, Baramulla, Ganderbal, Udhampur, Rajouri, Reasi, and Kathua as major production areas. Despite favorable climatic conditions, productivity remains low due to factors such as limited leaf availability, poor hybrid performance, technical constraints, and low farmer awareness. Research and extension agencies including SKUAST, CSB, CSRTI Pampore, and RSRS Miran Sahib are working to address these challenges and promote sericulture development in the region. Among the different stages of silkworm rearing, cocoon spinning is critical. It begins with the transfer of mature larvae to cocooning devices called mountages, where they spin cocoons through continuous head movements. The quality of cocoons depends heavily on the type, structure, and design of mountages. Poor mounting practices, improper density, or substandard mountages often result in inferior cocoons and reduced raw silk yield. Thus, selection of suitable mountages is essential for ensuring high-quality cocoon and silk production.

Material and Method

The present study was designed and will be executed at post graduate department of Sericulture Poonch Campus University of Jammu. Material to be used: Silkworm bivoltine hybrid:-Fc1×Fc 2

Mulberry variety: Chakmajra variety

Methods

Plastic Collapsible mountages Mulberry twigs mountages Egg tray mountages Husk rice mountages Pinus mountages Experimental Design CRD (Complete Randomized Design)

Data analyzed by ANOVA (analysis of variance) Procurement of live material and type of seed Silkworm hybrid strain FC1 X FC2 was procured from the State Sericulture Department, Mendhar for the present investigation. After incubation of eggs at $25\pm 1^{\circ}\text{C}$ and relative humidity of $80\pm 5\%$, black box was carried out on 8th day to achieve uniformity in hatching. The larvae hatched from the loose eggs were reared separately under uniform laboratory conditions as described by Yokoyama (1963) and Krishnaswami (1978). Area of study The present investigation on effects of mountage types on silkworm *Bombyx mori* spinning FC1×FC2 was conducted in Department of Sericulture, Poonch Campus, and University of Jammu.

Result and Discussion

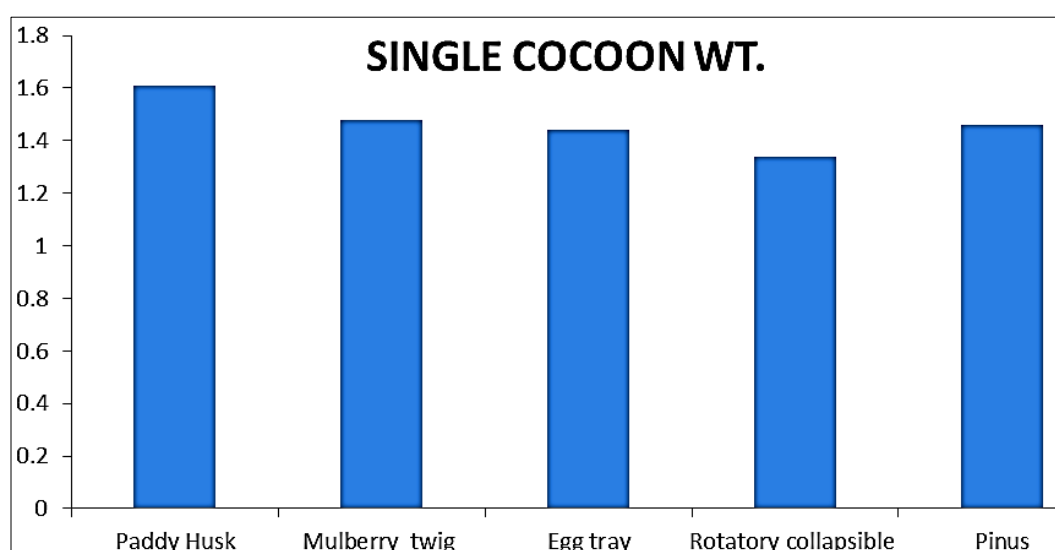
The results on the present investigation entitled “Effect of Mountages Types in Silkworm Spinning” (FC1 X FC2 Silkworm hybrid). The experimental result showed that

there were significant changes in the growth, development and economical attributes of silkworm due to different mountages.

A. Single Cocoon weight (gms)

Table 1: Single Cocoon Weight

Treatment	Single Cocoon Weight (g)	
	Mean	S.E.
1: Paddy Husk Mountage	1.611	0.015
2.Mulberry Twig Mountage	1.486	0.009
3. Egg Tray Mountage	1.441	0.015
4.Rotatory Collapsible Mountage	1.340	0.017
5.Pinus Mountage	1.459	0.035
C.D.	0.068	
SE(m)	0.22	
SE(d)	0.031	
C.V.	2.989	



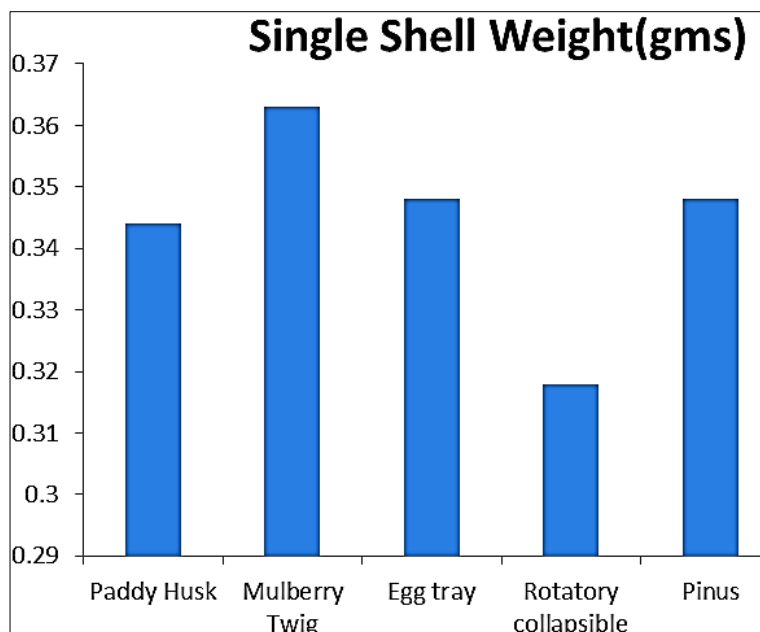
Graph 1: Single Cocoon Weight

B. Single Shell Weight (gms): Among the different types of mountages, significantly higher shell weight was recorded in Mulberry Twig Mountage (0.363gms), Egg Tray Mountage (0.348gms), followed by Pinus Mountage (0.348gms) Paddy

Husk Mountages (0.344gms) And the lower value Rotatory Collapsible Mountages (0.318gms). The value of C.D. is N/A, the value of S.E.(m) is observed 0.011, the value of S.E. (d) is 0.016, and the C.V. value is 6.614.

Table 2: Single Shell Weight

Treatment	Single Shell Weight (g)	
	Mean	S.E.
1: Paddy Husk Mountage	0.344	0.013
2.Mulberry Twig Mountage	0.363	0.002
3. Egg Tray Mountage	0.348	0.018
4.Rotatory Collapsible Mountage	0.318	0.017
5.Pinus Mountage	0.348	0.007
C.D.	N/A	
SE(m)	0.011	
SE(d)	0.016	
C.V.	6.614	

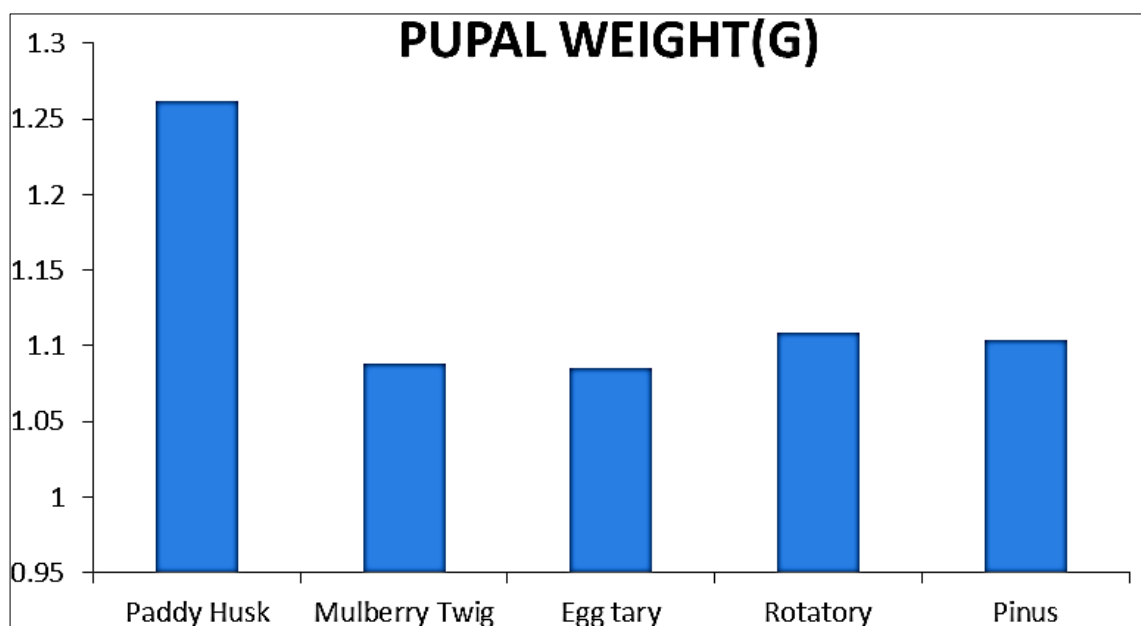
**Graph 2:** Single Shell Weight**C. Pupal weights (Gms)**

The maximum mean value of pupal weight is observed in Paddy Husk Mountage (1.262gms), pupal weight of Mulberry Twig Mountage (1.088gms), pupal weight of Egg Tray Mountage is (1.085gms) and then followed by

Rotatory Collapsible Mountage(1.019gms)and the lower value is observed by Pinus Mountage is (1.04gms).The value of C.D. is 0.051, the value of S.E. (m) is observed 0.017the value of S.E. (d) is 0.023,the C.V. value is 2.972

Table 3: Pupal Weight (g)

Treatment	Pupal Weight (g)	
	Mean	S.E.
1: Paddy Husk Mountage	1.262	0.009
2.Mulberry Twig Mountage	1.088	0.033
3. Egg Tray Mountage	1.086	0.011
4.Rotatory Collapsible Mountage	1.020	0.007
5.Pinus Mountage	1.105	0.039
C.D.	0.051	
SE(m)	0.017	
SE(d)	0.023	
C.V.	2.972	

**Fig 3:** Pupal Weight (G)

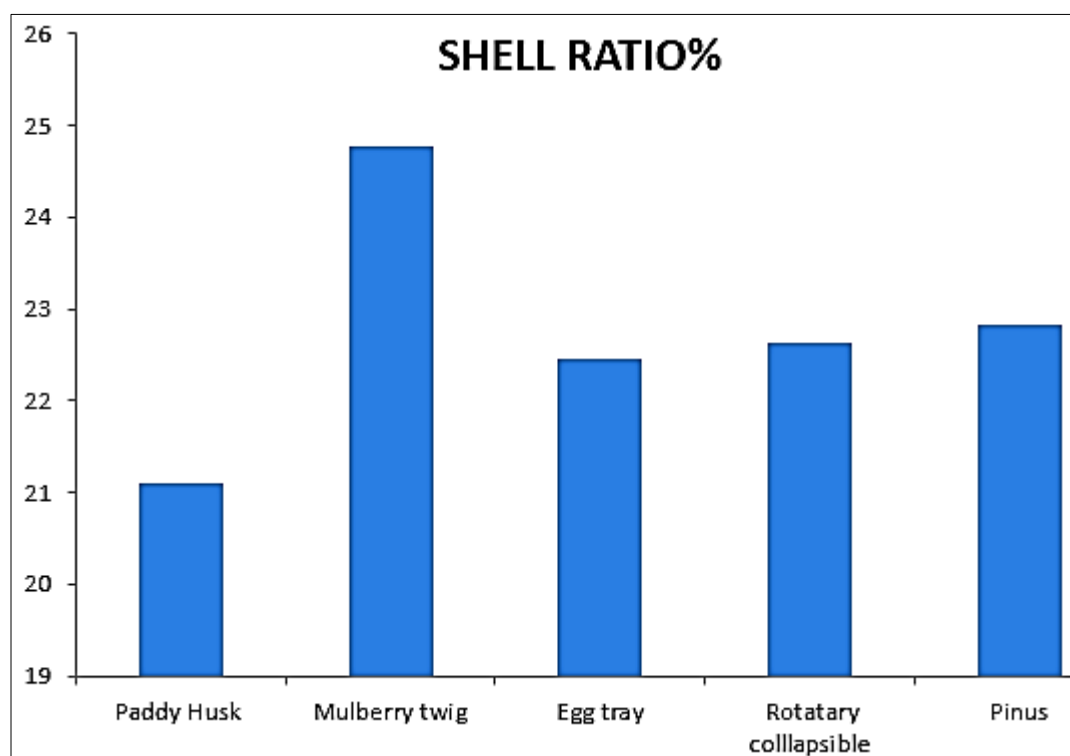
Shell ratio (%)

From the given data it is cleared that the Shell ratio of cocoon highest observed in Mulberry Twig Mountage (24.77%), followed by Pinus Mountage (22.82%), Rotatary

Collapsible Mountage (22.62%) and followed by Egg Tray Mountage (22.46%) and the least value is observed in Paddy Husk Mountage (21.09%). The value of C.D is 1.284, the value of S.E. (m) is 0.583 and the value of C.V. is 3.623.

Table 4: Shell Ratio %

Treatment	Shell Ratio	
	Mean	S.E.
1: Paddy Husk Mountage	21.095	0.574
2.Mulberry Twig Mountage	24.770	0.274
3. Egg Tray Mountage	24.463	0.413
4.Rotatary Collapsible Mountage	22.620	0.199
5.Pinus Mountage	22.823	0.258
C.D.	1.284	
SE(m)	0.412	
SE(d)	0.583	
C.V.	3.623	

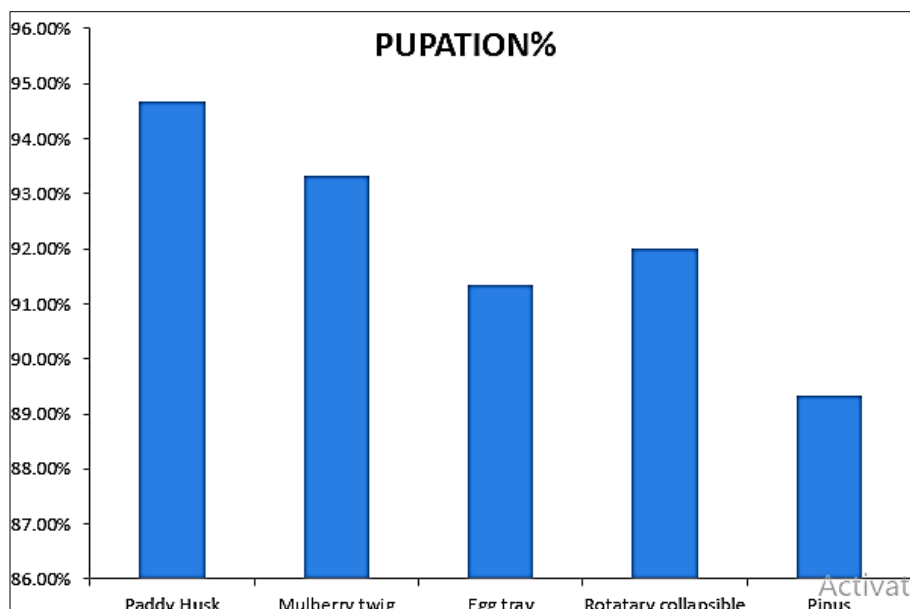
**Graph 4:** Shell Ratio %**D. Pupation (%)**

The data given in the table, it is cleared that the pupation rate was highest observed in Paddy Husk Mountage (94.66%) as compared to other Mountages, such as Pupation rate in Mulberry Twig Mountage (93.33%). In case of Egg

Tray Mountage (91.33%) and then followed by Rotatary Collapsible Mountage (92%) and the least value of Pupation rate is observed in Pinus Mountage (89.33%).The value of SE (m) is 1.130, the value of SE(d) is 1.598 and the value of C.V. is 2.453.

Table 6: Pupation %

Treatment	Pupation %	
	Mean	S.E.
1: Paddy Husk Mountage	94.665	0.943
2.Mulberry Twig Mountage	93.333	0.471
3. Egg Tray Mountage	91.333	1.247
4.Rotatary Collapsible Mountage	92.000	1.633
5.Pinus Mountage	89.333	0.943
C.D.	N/A	
SE(m)	1.130	
SE(d)	1.598	
C.V.	2.453	



Graph 5: Pupation %

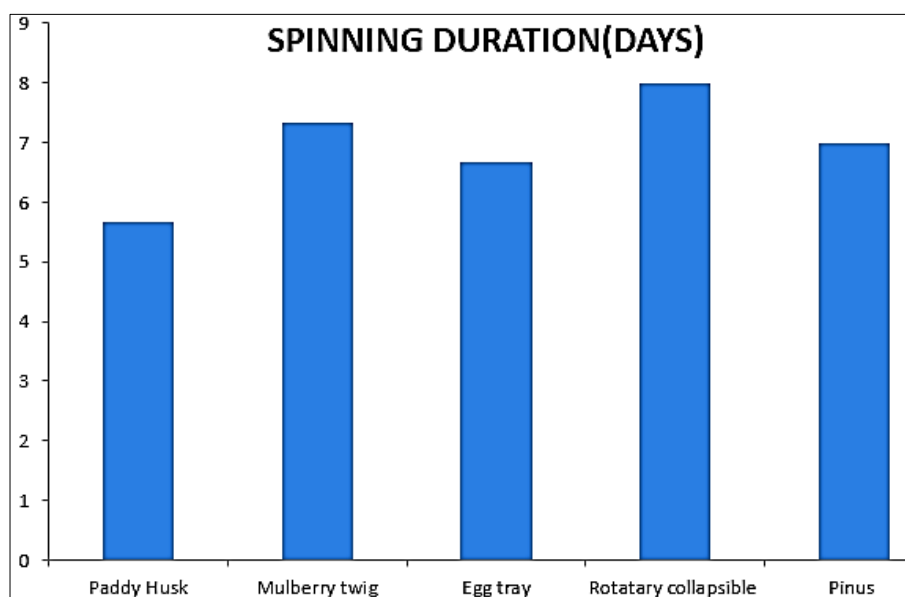
E. Spinning duration (Days)

Statistical Analysis of the data showed that the significantly maximum Spinning duration was seen in Rotatory Collapsible Mountage (8 days). In case of Paddy Husk Mountage (5.66 days), Mulberry Twig Mountage Spinning duration is observed (7.33 days), in case of Egg Tray Mountage Spinning duration (6.66 days), in Pinus Mountage

Spinning duration is observed (7 days). The highest value of spinning duration is observed in Rotatory Collapsible Mountage i.e. 8 days and the least value of spinning duration is observed in Paddy Husk Mountage i.e. 5days. The value of C.D. is 0.884, the value of S.E. (m) is 0.284, the value of S.E. (d) is 0.401 and the value of C.V. is 8.188.

Table 7: Spinning Duration

Treatment	Spinning Duration(days)	
	Mean	S.E.
1: Paddy Husk Mountage	5.665	0.236
2. Mulberry Twig Mountage	7.333	0.236
3. Egg Tray Mountage	6.665	0.236
4. Rotatory Collapsible Mountage	8.000	0.408
5. Pinus Mountage	7.000	0.000
C.D.	0.884	
SE(m)	0.284	
SE(d)	0.401	
C.V.	8.188	



Graph 6: Spinning Duration.

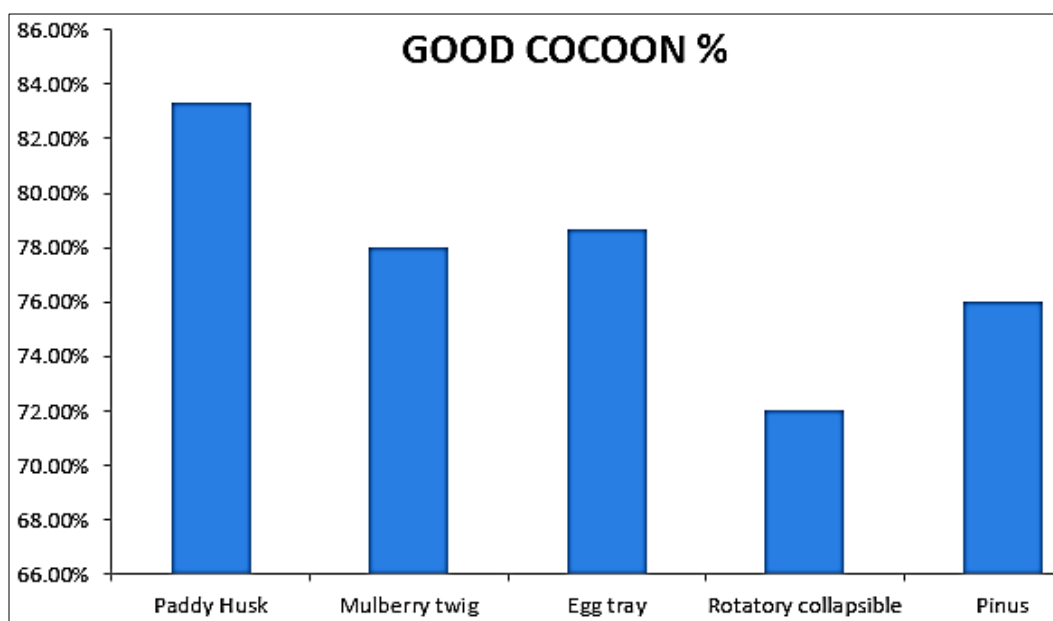
F. Good Cocoon %

The data given in the table, it is cleared that the Good cocoon percentage was highest observed in Paddy Husk Mountage (83.33%), and second highest in Egg Tray Mountage (78.66%), than followed by Mulberry Twig

Mountage (78%) whereas in Pinus Mountage 76% and the least value showed in Rotatory Collapsible mountage is 72.00% respectively. The value of C.D. is 3.381, the value of S.E. (m) is 1.085, the value of S.E. (d) is 1.535 and the value of C.V. is 2.797

Table 8: Good Cocoon %

Treatment	Good Cocoon %	
	Mean	S.E.
1: Paddy Husk Mountage	83.333	1.247
2. Mulberry Twig Mountage	78.000	0.816
3. Egg Tray Mountage	78.665	1.700
4. Rotatory Collapsible Mountage	72.000	0.816
5. Pinus Mountage	76.000	1.633
C.D.	3.381	
SE(m)	1.085	
SE(d)	1.535	
C.V.	2.797	

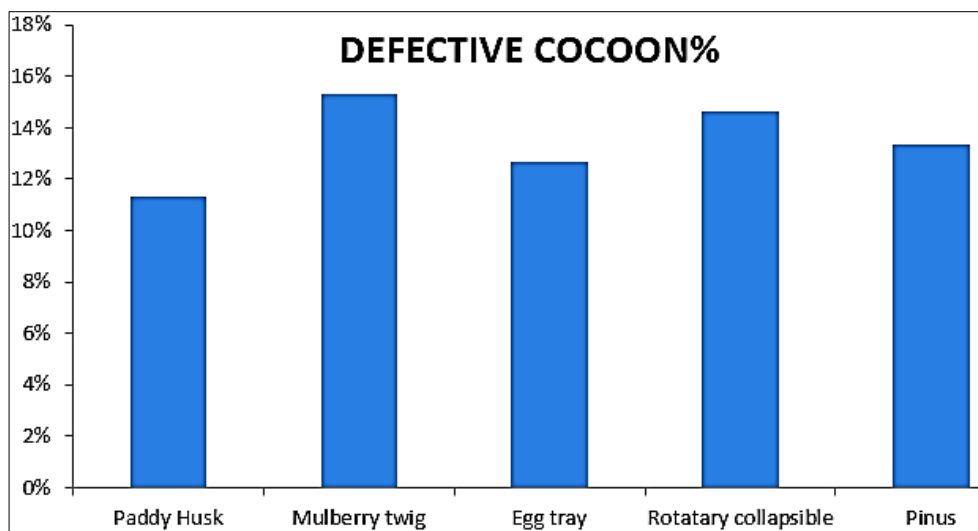
**Graph 7:** Good Cocoon%**G. Defective cocoon %**

From the given data, the highest value of the defective cocoon percentage is observed in Mulberry Twig Mountage and Rotatory Collapsible Mountage (15%) and then followed by Pinus Mountage (13.33%) and the third highest

defective cocoon percentage value is observed in Egg Tray Mountage is (12.66%) and the least value of the defective cocoon percentage is (11%). The value of S.E. (m) is 1.551, the value of S.E. (d) is 2.193 and the value of C.V. is 23.060

Table 9: Defective Cocoon %

Treatment	Defective Cocoon	
	Mean	S.E.
1: Paddy Husk Mountage	11.250	0.479
2. Mulberry Twig Mountage	15.250	0.479
3. Egg Tray Mountage	12.665	0.943
4. Rotatory Collapsible Mountage	14.750	3.301
5. Pinus Mountage	13.333	1.886
C.D.	N/A	
SE(m)	1.551	
SE(d)	2.193	
C.V.	23.060	



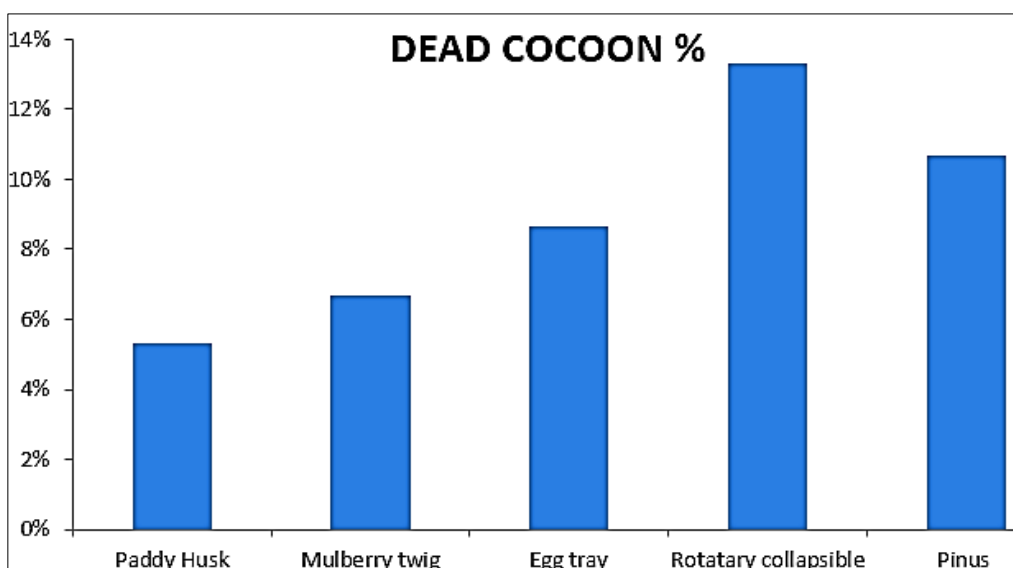
Graph 8: Defective Cocoon %

H. Dead Cocoon: In the present investigation, we observed that the lowest Dead cocoon percentage is observed in Paddy Husk Mountage (5%) and the second least value is observed in Mulberry Twig Mountage (7%). In case of Egg Tray Mountage, the Dead cocoon percentage is (9%),

followed by Pinus Mountage, the Dead Cocoon percentage i.e. (11 %). The highest value of Dead Cocoon percentage is (13%). The C.D. value of Dead Cocoon % is 4.304, and the S.E.(m) value is 1.381, S.E.(d) value is 1.954, C.V. value is 30.870.

Table 10: Dead Cocoon %

Treatment	Dead Cocoon %	
	Mean	S.E.
1: Paddy Husk Mountage	5.250	0.946
2. Mulberry Twig Mountage	6.750	0.479
3. Egg Tray Mountage	8.750	1.250
4. Rotatary Collapsible Mountage	13.250	2.490
5. Pinus Mountage	10.750	0.946
C.D.	4.304	
SE(m)	1.381	
SE(d)	1.954	
C.V.	30.870	



Graph 9: Dead Cocoon %

Following Parameters have been observed in Post Cocoon Stage

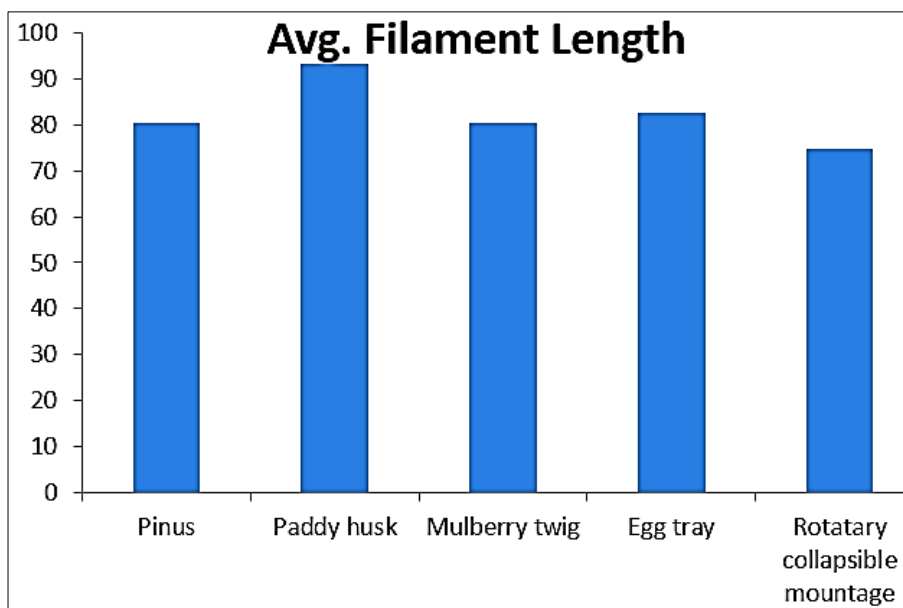
A>Avg. Filament Length

In our study we observe that the highest Avg. Filament

Length is seen in Paddy Husk Mountage i.e. 93.33, second the 2nd highest is seen in Egg tray Mountage, and then followed by the Mulberry Twig and Pinus Mountages. The lowest Avg. Filament Length is seen Rotatary Collapsible Mountage i.e. 74.66.

Table 11: Avg. Filament Length

Treatment	Avg. Filament Length	
	Mean	S.E.
Pinus Mountage	88.33	2.248
Paddy Husk Mountage	93.33	1.247
Mulberry Twig Mountage	80.33	2.718
Egg tray Mountage	82.66	2.779
Rotatary Mountage	74.66	1.700

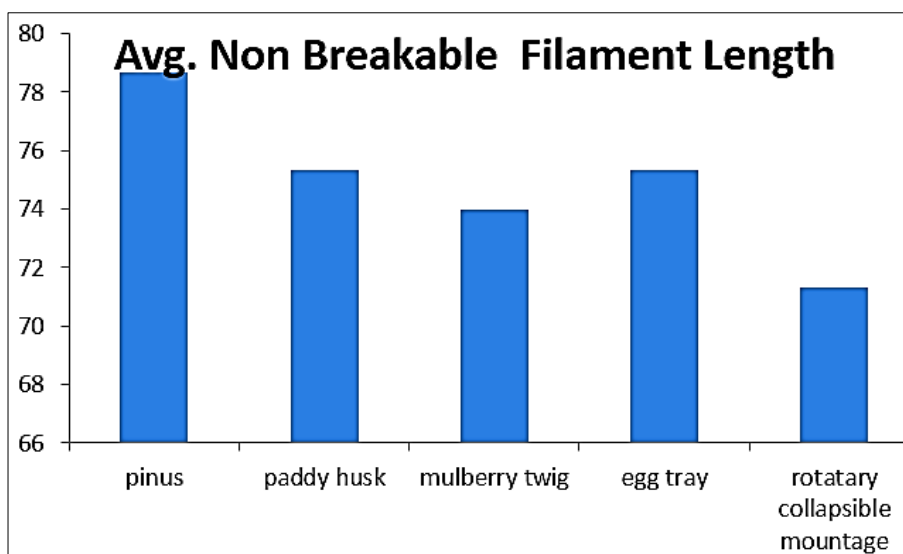
**Graph 10:** Avg. Filament Length.**B>Avg. Non Breakable Filament Length**

In our study we observe that the highest Avg. Non Breakable Filament Length is seen in Pinus Mountage i.e. 78.66, second the 2nd highest is seen in Paddy Husk and

Egg Tray Mountage, and then followed by the Mulberry Twig. The lowest Avg. Non Breakable Filament Length is seen Rotatary Collapsible Mountage i.e. 71.33.

Table 12: Avg. Non Breakable Filament Length

Treatment	Avg. Non Breakable Filament Length	
	Mean	S.E.
Pinus Mountage	78.66	1.650
Paddy Husk Mountage	75.33	2.494
Mulberry Twig Mountage	74	1.633
Egg tray Mountage	75.33	2.055
Rotatary Mountage	71.33	2.055

**Graph 11:** Avg. Non Breakable Filament Length.

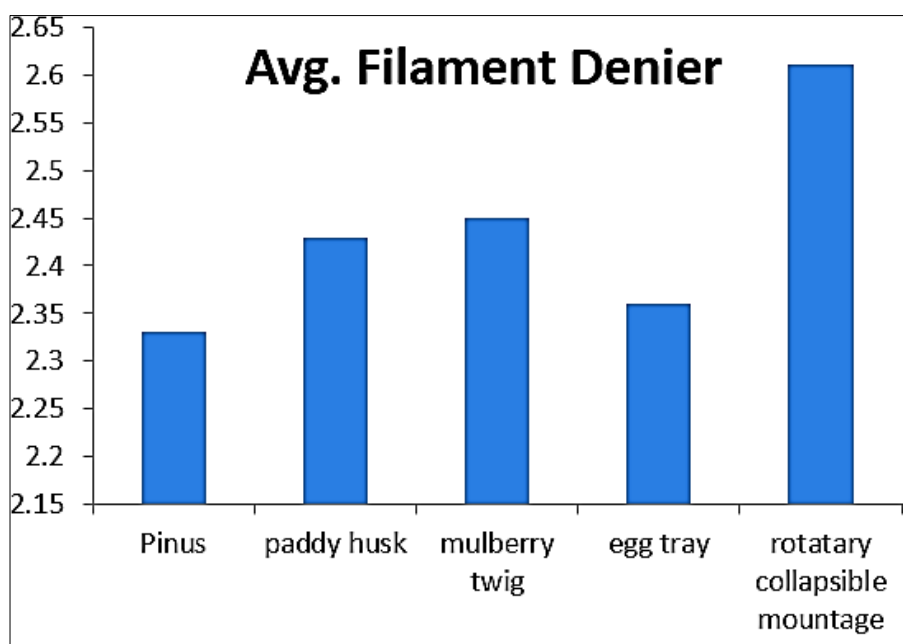
C>Avg. Filament Denier

In our study we observe that the highest Avg. Filament Denier is seen in Rotatory Collapsible Mountage i.e. 2.61, second the 2nd highest is seen in Mulberry Twig Mountage,

and then followed by the Paddy Husk Mountage. In case Egg Tray Mountage Avg. Filament Denier is 2.36. The lowest Avg. Filament Denier is seen Pinus Mountage i.e. 2.33.

Table 13: Avg. Filament Deniers

Treatment	Avg. Filament Deniers	
	Mean	S.E.
Pinus Mountage	2.33	0.103
Paddy Husk Mountage	2.43	0.103
Mulberry Twig Mountage	2.45	0.134
Egg tray Mountage	2.36	0.143
Rotatory Mountage	2.61	0.92



Graph 12: Avg. Filament Deniers

Discussion

The final stage of the rearing process is mounting. Mounting is the process of transferring adult fifth instar larvae to mountages. When larvae reach full maturity, their bodies become translucent, they stop feeding, and they begin looking for a suitable location to attach themselves for cocoon spinning and pupation. These actions plainly suggest that the developed larvae should be transferred into the mountages. They are collected and placed on mountages. The worms hook themselves to the mountages' spirals and begin spinning the cocoon. Silk fluid is discharged in minute amounts as the head moves, hardening to form a long continuous strand. The silkworm first builds the framework for the cocoon structure by weaving a preliminary web that gives the larva a place to stand while spinning the compact cocoon shell. The silk filament is deposited in a succession of brief waves producing the figure of eight due to the head's unique movements. Layers are constructed and added in this manner to form the tight cocoon shell. The shrinking larva wraps itself around the cocoon's compact shell and detaches from it, transforming into a pupa or chrysalis.

Multi-voltine cultivars need 2-3 days to spin, whereas uni and bivoltine variants take 3-4 days. Mountages are essential for producing high-quality cocoons. Farmers rely on local resources and employ various types of materials to construct Mountages. The quality of a cocoon is determined by the materials used, the finishing of Mountages, the space

available for spinning worms in Mountages, and other factors. Narrow space affects ventilation and results in poor reliability of cocoons. Similarly more space results in wastage of silk in the form of floss (Manual on Mountages, Mounting and Harvesting Technology for Quality Coon Production by Mathur and Quadri, (2010) ^[42]).

Our study showed that the single cocoon weight was recorded highest in the Paddy Husk Mountages (1.61gms) than other mountages such as Mulberry Twig Mountages (1.48gms), Egg Tray Mountages (1.44gms), and Pinus Mountages (1.46gms) while Rotatory Collapsible Mountages have a lesser value (1.34gms). Mulberry Twig Mountage (0.363gms), Egg Tray Mountage (0.348gms), Pinus Mountage (0.348gms), and Paddy Husk Mountages all had much higher shell weight than the other types of mountages (0.344gms). Rotatory Collapsible Mountages are less expensive (0.318gms). Paddy Husk Mountage has the highest mean pupal weight (1.262gms), Mulberry Twig Mountage has the second highest pupal weight (1.088gms), Egg Tray Mountage has the third highest pupal weight (1.085gms), Rotatory Collapsible Mountage has the lowest pupal weight (1.019gms), and Pinus Mountage has the lowest pupal weight (1.085gms). According to the statistics, the highest shell ratio of cocoon is found in Mulberry Twig Mountage (24.77%), followed by Pinus Mountage (22.82%), Rotatory Collapsible Mountage (22.62%), Egg Tray Mountage (22.46%), and Paddy Husk Mountage

(22.46%). In comparison to other Mountages, such as Mulberry Twig Mountage, the pupation rate in Paddy Husk Mountage was greatest (94.66 %). Egg Tray Mountage has the highest Pupation Rate (91.33 %), followed by Rotatory Collapsible Mountage (92 %), and Pinus Mountage has the lowest Pupation Rate (89.33 %). The Rotatory Collapsible Mountage has the significantly longest spinning duration, according to statistical analysis (8 days). Mulberry Twig Mountage Spinning Duration (7.33 days) is noticed in Paddy Husk Mountage (5.66 days), Egg Tray Mountage Spinning Duration (6.66 days), and Pinus Mountage Spinning Duration (7.33 days) (7 days). The Rotatory Collapsible Mountage has the longest spinning duration (8 days), while Paddy Husk Mountage has the shortest spinning duration (5 days). The largest percentage of good cocoons was found in Paddy Husk Mountage (83.33%), followed by Egg Tray Mountage (78.66%), Mulberry Twig Mountage (78%), Pinus Mountage (76%), and Rotatory Collapsible Mountage (72%). Mulberry Twig Mountage and Rotatory Collapsible Mountage have the greatest faulty cocoon percentage (15%), followed by Pinus Mountage (13.33%), and Egg Tray Mountage (12.66%). In this study, we discovered that Paddy Husk Mountage (5%) has the lowest proportion of dead cocoons, whereas Mulberry Twig Mountage has the second lowest percentage (7 %). The Dead Cocoon proportion in Egg Tray Mountage is (9%), followed by Pinus Mountage with a Dead Cocoon percentage of (11%). The highest percentage of Dead Cocoons is observed in Rotatory Collapsible Mountage (13%). The highest Avg. Filament length is observed in Paddy Husk mountage (93.33) and the lowest Avg. Filament Length are observed in Rotatory Collapsible Mountage. The Non Breakable Avg. Filament Length in our study observes that the highest in Pinus Mountage and lowest in Rotatory Collapsible Mountage. The Avg. Filament Denier highest observed in Rotatory Collapsible Mountage and lowest Pinus Mountage. In comparison, Himantharaj *et al.*, (2001) ^[33], Shinde *et al.*, (2012) ^[31], and Ademola *et al.*, (2014) ^[1] did comparable experiments on mountages and found similar results.

Summary and Conclusion

Mountage is a mechanism that allows mature silkworms to spin cocoons on a platform. At the field, there are several sorts of mountages, some of which are more popular. Farmers construct such mountages out of a variety of locally accessible materials. According to previous research, the type of material utilized, as well as the design and construction of the mountage, will determine the quality of the silkworm cocoon, *Bombyx mori* L. In addition to providing support for spinning worms, mountages should meet the following requirements: providing a convenient and uniform space with appropriate dimensions for spinning good sized cocoons, preventing the formation of double and malformed cocoons, providing ventilation for drying up the worm's last excreta prior to spinning, and allowing easy mounting and harvesting. Narrow area limits ventilation for spinning larvae, resulting in poor cocoon reelability; larger room, on the other hand, wastes silk in the form of floss used by the silkworm to build foundation for cocoon formation. (Mathur and Qadri, 2010) ^[42]. Improper mounting structure and careless handling and maintenance of mature silkworms result in the creation of faulty cocoons, resulting in a loss of 5 to 8% of cocoon output. As a result, the

quantity and quality of good cocoons are heavily reliant on the proper selection and application of mountages during cocoon spinning by developed larvae. Although there are various types of mountages available, each has its own set of drawbacks. In this study we use certain types of mountages i.e. Rotatory Collapsible mountages, Mulberry twigs mountages, Egg tray mountages, Husk rice mountages and Pinus mountages single cocoon weight was recorded highest in the Paddy Husk Mountages (1.61gms) than other mountages such as Mulberry Twig Mountages (1.48gms), Egg Tray Mountages (1.44gms), Pinus Mountages (1.46gms) while Rotatory Collapsible Mountages have a lesser value (1.34gms). Mulberry Twig Mountage (0.363gms), Egg Tray Mountage (0.348gms), Pinus Mountage (0.348gms), and Paddy Husk Mountages all had much higher shell weight than the other types of mountages (0.344gms). Rotatory Collapsible Mountages are less expensive (0.318gms). Paddy Husk Mountage has the highest mean pupal weight (1.262gms), Mulberry Twig Mountage is second (1.088gms), Egg Tray Mountage is third (1.085gms), Rotatory Collapsible Mountage has the lowest pupal weight (1.019gms), and Pinus Mountage has the lowest pupal weight (1.019gms) (1.085gms). Mulberry Twig Mountage has the greatest cocoon shell ratio (24.77%), followed by Pinus Mountage (22.82%), Rotatory Collapsible Mountage (22.62%), Egg Tray Mountage (22.46%), and Paddy Husk Mountage (22.46%), according to statistics. (22.46%). In comparison to other Mountages, such as Mulberry Twig Mountage, the pupation rate in Paddy Husk Mountage was greatest (94.66 %). Egg Tray Mountage has the highest Pupation Rate (91.33 %), followed by Rotatory Collapsible Mountage (92 %), and Pinus Mountage has the lowest Pupation Rate (89.33 %). The Rotatory Collapsible Mountage has the significantly longest spinning duration, according to statistical analysis (8 days). Mulberry Twig Mountage Spinning Duration (7.33 days) is noticed in Paddy Husk Mountage (5.66 days), Egg Tray Mountage Spinning Duration (6.66 days), and Pinus Mountage Spinning Duration (7.33 days). The Rotatory Collapsible Mountage has the longest spinning duration (8 days), while Paddy Husk Mountage has the shortest spinning duration (5 days). The largest percentage of good cocoons was found in Paddy Husk Mountage (83.33%), followed by Egg Tray Mountage (78.66%), Mulberry Twig Mountage (78%), Pinus Mountage (76%), and Rotatory Collapsible Mountage (72%). Mulberry Twig Mountage and Rotatory Collapsible Mountage have the greatest faulty cocoon percentage (15%), followed by Pinus Mountage (13.33%), and Egg Tray Mountage (12.66%). In this study, we discovered that Paddy Husk Mountage (5%) has the lowest proportion of dead cocoons, whereas Mulberry Twig Mountage has the second lowest percentage (7%). The Dead Cocoon proportion in Egg Tray Mountage is 9%, followed by Pinus Mountage with a Dead Cocoon percentage of (11%). The highest percentage of Dead Cocoons is observed in Rotatory Collapsible Mountage (13%). The highest Avg. Filament length is observed in Paddy Husk mountage (93.33) and the lowest Avg. Filament Length are observed in Rotatory Collapsible Mountage. The Non Breakable Avg. Filament Length in our study observes that the highest in Pinus Mountage (78.66) and lowest in Rotatory Collapsible Mountage (71.33). The Avg. Filament Denier highest observed in Rotatory Collapsible Mountage (2.61) and lowest Pinus Mountage. (2.33)

In conclusion, the Paddy Husk mountage employed in this study is the best for silkworm rearing, because it is easily and locally available in everywhere in the villages as well as town. The cost of the Paddy Husk was very low and quality of cocoon formed by Paddy Husk mountage is very good cocoon and the post cocoon parameters. The result of the present study reveals that, the Paddy Husk mountage is the better when compared to the other mountages for various parameters such as cocoon and the post cocoon parameters viz., total number of cocoon and their weight of good cocoon per mountage. Similarly, number of defective cocoon per mountage was found least on Paddy Husk mountage than egg tray mountage. The cocoon production is the end product of silkworm rearing before transferring to textile industry. The quality and quantity of cocoon produced is very essential to every Sericulturist. Paddy husk mountage exhibit the highest cocoon quality and quantity among the parameters measured. Although the Paddy husk mountage has some demerit in terms of biodegradation and sticking to the shell of the cocoon. All needed precaution are needed to put into

Consideration to get optimum quantity and quality of cocoon. It is therefore been recommended that sericulturist should explore the use of paddy husk mountage which are readily available in their environment. The main objective of the sericulture is the production of large quantity of good cocoon which in turn result in production of good quality of silk. This cannot be obtained only by the use improvement of mulberry cultivation and silkworm rearing, but also by the method of mounting and mountages used (Singh *et al.*, 2012) [4]. Therefore, the present study was conducted "To investigate the effect of different mountage on spinning of cocoon" obtained from the Paddy Husk mountage in comparison to with the control and showed that, the Paddy Husk mountage exhibited better results when compared to the Mulberry twig mountage and Rotatory collapsible mountage. However, subsequent studies are needed to verify as which of these Paddy Husk mountage would be the best mountages to release into farmers field.

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