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STUDIES ON CROP PERFORMANCE OF *A.MYLITTA* D (TASAR SILKWORM) ON *LAGERSTROEMIA PARVIFLORA* (ROXB.) (SIDHA) SECONDARY FOOD PLANT FOUND IN SIMILIPAL BIOSPHEAR RESERVE OF MAYURBHNAJ DISTRICT OF ORISHA

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ABSTRACT

Antheraea mylitta D wild tasar silkworm is not food specific like mulberry silkworm but it preferred three primary food plant like *T. tomentosa* (Asaan), *T.arjuna* (Arjun) & *Shorea robusta* (Sal). Other than these food plants Tasar Cocoons has been found in *Lagerstroemia parviflora* trees (Sidha) in Similipal Biospheres. Experiments has been taken to ascertain economic of crop performance in said plant compare to primary Asan Plants. It has been found that though production of Cocoons on Sidha Plant 10% ERR compare to Asan 35%.However where only Sidha plant are available like Dudhi distric of U.P Tasar Cultivation can be done commercial basis.

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INTRODUCTION

Tasar Silkworm is a polyphagous insects feeding on primarily *Terminalia tomentosa*, *Terminalia arjuna* and *Shorea robusta* and secondarily on more than dozen of food plant . However it has food preference. The host plant which normally preferred called as primary food plant and in absence of same other plant used for cocoon formation for existence known as secondary food plant. Research reveals that effect of host plant affect of cocoons production in quality and quantity. Therefore successful tasar culture depends upon quality of leafs irrespective of food plant for cocoons yield. The present study an attempt was made to proved existence of some secondary food plant for tasar cultivation where primary food plant are not available like Dudhi district of U.P.

MATERIALS AND METHODS

Present Work was carried out to make compare the productivity of tasar cocoons with primary food plant *T. tomentosa*(Asan) and *L.parviflora* on yield and silk ratio.The study was carried out at Similipal Biosphear Area of Mayurbhanj.Ten Dfls of Daba B.V rearing was carried out in both food plant twice in a year and cocoons were collected and send to RTRS, Baripada for Parameter analysis. Both the rearing was done in same place, same climate in different Food Plant.

RESULTS

It has been found that feeding habit is faster in Asan plant compare to Sidha plant.

Table. Rearing Parameters

Sl. No	Name of Food Plant	No of Worm Brushed	Initial Loss %	Yield/ Dfls	ERR/ 100 worm	Shell Wt.	Leaf Production	S.R %
1.	*T.tomentosa*(Asan)	2000	22	41	35	1.45	5.8Kg/Plant	14.40
2.	*L.Parviflora*(Sidha)	2000	46	12	11	1.02	6.6Kg/Plant	10.23

Fig- Tasar Silkworm Rearing on *Lagerstroemia parviflora* (Sidha) & *T.tomentosa* (Asan) plant

Moulting time and stages are some how more in Sidha leaf feed worm than Asan. Finally out of 12 Dfls in Asan yield was 41 cocoons per dfls compare to 15 cocoons per dfla in Sidha plant. When we compare ERR of crop production it is found that 11% compare to Asan 35%. As far as Shell wt is concerned in Sidha feed worm produce 10.23 compare to ASan feed worm 14.40. But when we compare leaf production of both plant it is found that Sidha has 6.64 Kg/plant compare to 5.8Kg/plant in Asan. Similarly leaf growth and succulence is more in Sidha leaf compare to Asan. Initial loss of worm is more in Sidha feed leaf is more than Asan. Asan plant are found region specific but Sidha plant is universally found in all part of India. Sidha plant survivality is more than Asan plant and less affected to disease and pest attack. Only due to lactation in leaf may affected early worm.

DISCUSSION

It is concluded from above experiment that though *L. parviflora* (Sidha) not included in primary food plant of tasar silkworm *T. tomentosa* in India and production of cocoons can not be comparable but tasar cultivation can be sustain where Sidha plants is available. Most of the part of India where primary food plants are not available and Sidha plant abundance is more tasar production can be taken up commercially.

If possible initial rearing (Chawki) can be done by using primary food plant or by artificial diet develop by CTR&TI and late age rearing may be done in *L.parviflora* for tasar pocoond production. In U.P abudance of *L.parviflora* is more, tasar reraing can be done commercially but modifying brushing policy. Intial brushing (Chawki) in primary food plant /Artificial diet a success commercial production can be done. So Commercial exploitation of tasar cocoons production can be possible in exigency or albescence of primary food plant in any part of India.

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