B. No — 141

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DRIAGE IN *PALAS* BROODLAC

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Broodlac after harvesting is seldom used the same day for inoculating other trees. Sometimes it has to be despatched to outstations when it takes 1-3 days or even more only for transportation. Even when it is required to be used in the same area it may not always be possible to use it the day it is harvested, because healthy broodlac has to be sorted out from the total harvest and then tied into small bundles suitable for inoculation. Thus, there is always a time lag of 1 to 3 days or more before harvested broodlac is actually used. It is well known that the weight of the broodlac goes on decreasing during this period. Though this fact is well known to those associated with lac cultivation, no published data are available on the subject, except the unsupported statement by Glover (1937) that "Data to hand suggests an allowance of 5-10 seers in the maund for driage as a practical working figure for all lacs after cutting, for use in States, zamindaries or large plantations", which work out to 12.5% to 25%.

This loss in weight of broodlac may take place in two stages:

(i) Initial driage which occurs within the first three days due to the evaporation of water contents of the green host twigs in the broodlac, and

(ii) The subsequent loss of weight (which occurs after a week or so depending on the stage of development of the progeny inside the female lac insects) due to (a) Swarming of the larval progeny, (b) Emergence of the predatory and parasitic insects in the broodlac, and (c) Drying up of the fluid contents of the female lac insects.

It may, however, be stated that it is the initial driage with which we are concerned in this article, because broodlac is never allowed before use to reach the second stage as it would then be practically useless for further propagation.

The data reported here pertains to the period 1962 to 1967 and were collected at our Regional Field Research Station at Mirzapur (U.P.). The broodlac samples were those purchased from the Lac Development Officer, U.P., from his Broodlac Farm at Bojh and Chuppepur (District Varanasi, U.P.) and Zaidpur (District Barabanki, U.P.), except in *Katki* 1966 when it was obtained from Lodhma and Horhap (District Ranchi, Bihar).

The samples were weighed immediately after harvesting and again just before inoculation. During the intervening period they were stored in well ventilated tents. The data obtained are presented in Table 1.

Conclusions

It will be seen that on an average 3.66 to 8.0% driage per day occurred in *Baisakhi* broodlacs and 5.0 to 15.8% in *Katki* broodlacs during the first three days after harvesting. Driage in *Baisakhi* broodlacs (which are collected in July) is less due to the higher atmospheric humidity at that time, which allows little evaporation of the water contents of the green host twigs, than in *Katki* broodlacs (which are collected in October-November) when the lower atmospheric humidity allows more rapid evaporation.

Table 1
Driage of *Rangeeni* broodlac

Serial No.	Progeny of broodlac	Source of collection	Date of collection	Quantity collected kg	Weight in the field kg	Period of driage days	Total driage kg	Percentage driage during the period	Percentage driage per day	Meteorological data during the period of driage: Mean temperature °C	Meteorological data during the period of driage: Rainfall mm	Meteorological data during the period of driage: Range of relative humidity %
						Crop—*Baisakhi*						
1	Palas × Ghont	Bojh	5.7.1963	25.0	22.5	2	2.5	10.00	5.00	35.0	1.5	50-62
2	Palas × Palas	Chuppepur	5.7.1963	460.0	394.5	2	65.5	14.23	7.11	35.0	1.5	50-62
3	Palas × Palas	Chuppepur	9.7.1964	460.0	379.5	2	60.5	13.75	6.87	31.0	—	72-81
4	Palas × Palas	Chuppepur	12.7.1964	298.0	275.0	2	23.0	7.71	3.85	29.5	56.5	82-91
5	Palas × Palas	Zaidpur	13.7.1965	200.0	154.5	3	45.5	22.75	7.58	36.5	5.0	51-66
6	Palas × Palas	Chuppepur	22.7.1965	150.0	138.0	1	12.0	8.00	8.00	37.0	—	55-69
7	Palas × Palas	Chuppepur	20.7.1967	150.0	144.5	1	5.5	3.66	3.66	33.0	—	75-79
						Crop—*Katki*						
1	Palas × Palas	Bojh	19.10.1963	498.0	342.2	2	155.8	31.28	15.64	30.5	—	46-59
2	Palas × Palas	Zaidpur	19.10.1964	625.0	471.6	3	153.4	24.54	8.18	33.0	8.0	71-86
3	Palas × Palas	Chuppepur	2.11.1965	450.0	378.5	1	71.5	15.88	15.88	27.0	—	33-45
4	Palas × Palas	Zaidpur	2.11.1965	600.0	453.5	3	146.5	24.41	8.14	27.0	—	33-53
5	Palas × Palas	Lodhma & Horhap	21.10.1966	340.0	286.9	3	53.1	15.61	5.20	31.0	—	32-57
6	Palas × Ghont	Bojh	26.10.1967	30.0	28.5	1	1.5	5.00	5.00	27.0	—	48-55
7	Palas × Palas	Bojh	26.10.1967	250.0	223.6	1	26.4	10.56	10.56	27.0	—	48-55
8	Palas × Palas	Chuppepur	26.10.1967	200.0	183.15	1	16.85	8.42	8.42	27.0	—	48-55

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