

Manures and manuring.

50 cartloads of cattle manure at Re. 1/- per cartload	...	50	0	0
Spreading the above—6 men at 6 as. per head.	...	2	4	0
			52	4 0

Seeds and sowing.

Dibbling agathi and greengram—2 men at 6 as. each	...	0	12	0
Cost of 10 seers of agathi and at 10 seers per rupee.	...	1	0	0
Cost of green-gram 6 seers at 12 seers per rupee.	...	0	8	0
Cutting ginger and planting—6 men at 6 as. per head.	...	2	4	0
Cost of ginger seed 50 maunds at Rs. 2/- per maund.	...	100	0	0
			104	8 0

After-cultivation.

8 weedings including thinnings	...	10	0	0
Cost of 20 headloads of "Thangedu" at 2 as. per headload.	...	2	8	0
			12	8 0

Irrigation.

Tank irrigation supplemented with well irrigation during summer (8 well-irrigations at Rs. 3/- per irrigation).	...	24	0	0
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Harvesting.

Digging tubers at Rs. 15/- per acre.	...	15	0	0
Contingencies	...	16	12	0
		Total Rs.	250	0 0

Research Notes.

A remarkable emergence of a Pempheres parasite.

An unexpected emergence of a large number of Braconid parasites (*Spathius* Sp.) from a cage of wilting cotton stalks under observation was discovered for the first time on 20th March 1936. This Braconid is already known to be a definite parasite of the larval stages of the cotton stem weevil—*Pempheres affinis*, F. and the same has been observed and collected from several places like Coimbatore, Ramnad district and Erode. The emergence continued for over a month and a half though irregularly and in diminishing numbers. About five hundred parasites have thus been collected.

It was strongly suspected at the time that an alternative host was involved in this mass emergence. But no satisfactory and conclusive evidence in regard to its true host relations was forthcoming at the time. As a result of careful studies and actual collection of the host stages and adults it is now definitely seen to be a specific parasite of a Bostrychid—*Sinoxylon sudanicum* Lesne.

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Mendelian Segregations for Juiciness and Sweetness in Sorghum Stalks.

In a previous article* juiciness and sweetness in the stalks of sorghum have been reported to be independent, heritable characters. A number of segregations for these characters have been noted for each separately and in combination. A factor D is responsible for dry pithy stalks; d produces juicy stalks. A factor X results in "not sweet" stalks; x results in sweet stalks. D and X are independent in inheritance. The Mendelian segregations obtained are presented below:

* Rangaswami Ayyangar, G. N., Juiciness and Sweetness in Sorghum Stalks.

Madras Agricultural Journal 23 (9) Pp. 350—352. 1935.

Table I.*Pure for Sweetness (xx), Segregating for Juicy Stalks (Dd).*

	Stalk—Pithy DD and dd (Midrib—White)	Stalk—Juicy dd (Midrib—Dull)
Totals of 24 families grown in Nandyal, Hagari and Coimbatore.	1644	689

Table II.*Pure for Juicy Stalks (dd), Segregating for Sweetness (Xx).*

	Stalk (Pure Dull Midrib) Not Sweet (XX and Xx)	Sweet (xx)
Total of 12 families	1176	392

Table III.*Pure for Pithy Stalks (DD), Segregating for Sweetness (Xx).*

	Stalk (Pure White Midrib) Not Sweet (XX and Xx)	Sweet (xx)
Total of 5 families	545	206
Expected (3:1)	563	188
$X^2 = 2.298,$	$P > 0.10.$	

In crosses between a pithy stalked sweet variety and a juicy stalked "not sweet" variety the first generation was pithy stalked and "not sweet". The following di-hybrid segregations have been obtained.

Table IV.*Di-hybrid segregations for Pithy and Juicy stalks and for "Not Sweet" and Sweet.*

	Stalk—Pithy (DD and Dd) Not Sweet (XX and Xx)	Sweet (xx)	Stalk—Juicy (dd) Not Sweet (XX and Xx)	Sweet (xx)
Total of 5 families	917	348	342	115

In further selections the economically poor combination of pithy stalks "not sweet" has been fixed and is breeding true.

Millet Breeding Station,
Coimbatore,
July 18, 1936.

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To The Editor, Madras Agricultural Journal, Coimbatore.

Sir,

With reference to the letter of the Parasitologist, dated 11--6--'36, I have great pleasure in answering the points raised by him.

As the monthly reports of the Parasitologist are not published for the benefit of other entomological workers, I was unfortunately unaware of the items of "new knowledge" which he claims to have reported about, when I sent my note for publication to the Editor of the M. A. S. U.