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A Note on the Nutritive Value of Certain Minor Millets.

The minor millets like samai or little millet (*Panicum milliare* Lam.), thenai or Italian millet (*Setaria italica* Beauv.) and varagu or Koda millet (*Paspalum scrobiculatum* Linn.) are richer in protein, fat and mineral constituents.

Earlier works reporting on the chemical composition of minor millets (Kadkol *et al.*, 1954, Anon, 1966) furnished limited information on the chemical composition of the minor millets.

Under the present study the grains of two strains and three promising cultures of samai, two strains and one promising culture of thenai and one strain of varagu were analysed for crude protein, crude fat, crude fibre, carbohydrates, phosphorus, potassium, calcium and magnesium contents employing standard methods (AOAC, 1960). The analytical data are presented in Table 1.

The crude protein and fat content of samai ranged from about 11.0 to 16.5 per cent and 4.0 to 9.0 per cent respectively. CO 1 samai recorded the maximum per cent of CaO (0.92) while PM 140 samai recording traces of CaO and was the richest in phosphorus (1.72 per cent) content among the varieties studied. Culture 291 samai was comparatively higher in protein and fat contents. The strain CO 2 samai recorded the least crude fibre content (5.67 per cent) exhibiting an acceptable quality.

The crude protein content of the thenai ranged from 12 to 19 per cent and that of fat from about 5 to 9 per cent. In general thenai varieties were fairly rich in minerals, crude fibre, calcium and phosphorus.

TABLE 1. Nutritive value of certain minor millet grains

Name and variety of the Minor Millet	Percentage on Moisture Free Basis									
	Moisture	Ash	Crude protein	Crude Fat	Crude Fibre	Carbohydrate	CaO	P_2O_5	K_2O	MgO
Samai CO 1	9.90	4.88	13.20	7.10	7.32	67.50	0.92	0.88	1.77	0.43
Samai 291	10.42	4.69	16.41	9.04	7.26	62.60	0.62	1.28	2.13	0.13
Samai 307	10.00	4.56	15.89	8.56	7.00	63.99	0.60	0.56	4.22	0.22
Samai PM 140	6.90	10.09	10.85	4.08	7.63	66.35	Traces	1.72	2.07	Traces
Samai CO 2	8.30	5.23	12.86	5.23	5.67	71.01	0.25	1.07	0.87	0.15
Thenai CO 3	10.95	5.16	12.13	9.28	6.35	67.08	0.62	1.12	4.29	0.43
Thenai CO 2	10.91	7.11	18.66	4.87	6.49	62.87	0.63	1.29	2.24	0.65
Thenai 5307	9.75	4.94	16.49	6.23	6.23	66.11	0.60	1.05	2.33	0.22
Varagu CO 2	10.35	3.73	10.93	6.65	6.22	72.47	0.62	0.67	3.46	0.43

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Effect of Planofix and Fruitofix on MCU 5 Cotton

Boll shedding in cotton was attributed to either insect pests or physiological disorders. Plant regulators have been reported to be very effective in correcting some of the physiological disorders (Bhatti and Date, 1955; Negi and Avtar Singh, 1956; Bhardwaj *et al.*, 1963). Foliar application of Naphthalene acetic acid at 10 ppm was found to be useful on MCU 1, MCU 4, PRS 30/2 and Sujatha varieties (Bhat, 1972) and also on Krishna variety (Sudha Krishna Mukerji, 1973) of Cotton. However, the efficacy of NAA on MCU 5 cotton has not been so far reported. NAA is now commercially available as Planofix and Fruitofix. The present investigation was taken up to compare their efficacy and to fix up the optimum concentration and time of application.

A field experiment was conducted in the Agricultural University Farm, Coimbatore during 1974—'75. The soil was of loamy type with low nitrogen, medium phosphorus and potassium status. The experiment was conducted in a randomised block design with eight treatments, replicated thrice. The treatments were: T_1 spray of 30 ppm Planofix in 3 split intervals of 15 days after initiation of flowering, T_2 spray as in T_1 with Fruitofix, T_3 spray of 60 ppm of Planofix in 3 splits at intervals of 15 days after initiation of flowering and at 20 ppm Planofix 15 days thereafter, T_6 spray as in T_5 with Fruitofix, T_4 60 ppm of fruitofix in three plots, T_5 30 ppm Planofix followed by 20 ppm Planofix, T_7 water spray and T_8 no spray (Control). The net plot size was 6.5 × 2.25 m with a plant spacing of 75.0 × 22.5 cm. The crop was supplied with 60, 30 and 30 kg of N, P and K respectively per/ha. A high volume rocker sprayer was employed for spraying.