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TOPPING CUM VARIETAL EVALUATION IN TOBACCO

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Field experiments conducted at the Agricultural Research Station, Tamil Nadu Agri. University, Bhavanisegar during Rabi seasons of 1980-81 and 81-82 revealed that topping the tobacco crop by leaving 12 leaves per plant has given the highest leaf yield. Among the varieties studied variety I. 64 performed better than varieties I. 115, HV. 67-18 and Vazhaikkappal in respect of leaf yield.

Tobacco is an important cash crop grown extensively throughout India. In Tamil Nadu mostly the chewing tobacco varieties like Vazhaikkappal, Vattakkappal and Oosikkappal are grown in an area of about 16,000 ha. of which the sun-cured tobacco occupies the major area. Topping is an important operation in tobacco. Delayed topping reduces the tobacco leaf yield by one percent per day. The quality of the tobacco leaves can also be improved much by topping at correct stage leaving optimum number of leaves per plant. The present experiment had the objective of determining the number of leaves to be allowed while topping for maximising tobacco yields.

MATERIAL AND METHODS

Field experiments adopting split plot design with three varieties of tobacco viz., I-64, I-115 and HV 67-18 as main plot treatments and four systems of topping viz, leaving 6, 8, 10 and 12 leaves per plant as sub plot treatments were conducted in the rabi seasons of 1980-81 and 81-82 at Agricultural Research Station Bhavanisagar.

In Rabi 1981-82 one more variety (Vazhaikkappal) was included in the main plot treatment. The treatments were replicated thrice. Fertilizer, plant protection and other cultural operations recommended by the University were followed. At maturity the crop was harvested and plant wet weight was recorded. The plants were sun-cured for 15 days after which the leaves were stripped off from the stalk and treatment wise dry leaf yield was recorded.

RESULTS AND DISCUSSION

The variety I-64 registered the highest plant wet weight among the varieties evaluated in both the seasons (Table). Though the varieties did not differ significantly among themselves in respect of dry leaf yield, numerically higher yield was recorded by I-64. Topping by leaving 12 leaves/plant recorded the highest plant wet weight and dry leaf yield consecuti-

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vely in both the years. Gopalachari *et al.* (1981) also obtained highest yields in tobacco variety I-64. Kozymplick and iamarre (1981) reported that topping the plants by leaving 16 leaves/plant was optimum for maximum leaf yield in tobacco. Podeur *et al* (1982) obtained 20 per cent increase in dry matter yield by topping the tobacco variety PB D6. Leaving 8-11 leaves/plant was optimum for maximum yields in tobacco (Krishnamoorthy *et al.*, 1954). For light soils of Andhra pradesh leaving 18-20 leaves/plant was found to be the optimum (Walunjkar and Kori, 1979). However, The present study indicated the optimum number of leaves as 12 for obtaining maximum leaf yield in tobacco.

REFERENCES

GOPALACHARI, N. C., V. V. RAMANA RAO and T. SITARAMACHARI. 1981. Impact of improved practices on yield and economic returns of tocacco-I, Cheroot, chewing and hookah tobaccos. *Tob. Res.*, 7 : 162-71.

KOZYMPLIK, V. and M. LAMARRE. 1981. Effect of planting distance and stage and height of topping on some morphological characters of cigar tobacco. *Field crop Abst., 34* : 181.

KRISHNAMOORTHY, T., N. A. AWATRAMANI and S. S. KANDAM. 1954. Nitrogen manuring, spacing and topping of Bidi tobacco in Gujarat *Ind. Tob.* 4. 124-37.

PODEUR, G., F. CAZAMAJOUR and J. CHOUTEAU. 1982. Effect of early topping on physical and chemical characteristics of dark tobacco. *Field crop Abst.*, 35 : 186

WALUNJKAR, W. G., and S. KORI. 1979. Tobacco production and industry in Andhra pradesh. *Ind. Tob J., XI* : 3-14.

Table 1. Effect of topping on the leaf yield kg/ha of tobacco varieties (Mean values)

Treatments	Rabi 1980-81		Rabi 1981-82	
	Plant wet weight	Cured leaf yield	Plant wet weight	Cured leaf yield
Varieties				
I-115	16003	7625	13679	2855
I-64	19290	2986	10499	2395
HV-67-18	14230	2074	13138	2335
Vazhaikkappal	—	—	13293	2314
CD (P=0.05)	3737	N.S	N.S	259
No. of leaves				
6 leaves/plant	12524	2271	9864	1814
8 leaves/plant	15307	2426	12318	2263
10 leaves/plant	17949	2530	14645	2720
12 leaves/plant	20251	3018	16538	3105
CD (P=0.05)	3704	554	4393	321