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**PERFORMANCE OF SOME SELECTED CLONES OF TURMERIC  
(*CURCUMA* SPP) IN WYNAD, KERALA**

Lack of information on high yielding varieties of turmeric, one of the main reasons for the declining spread of this crop in Wynad, inspite of suitable agroclimatic conditions of the area. An experiment consisting 20 selected clones of turmeric in randomized block design with 3 replications was therefore conducted at the Horticultural Research Station, Ambalavayal during the year 1973-74 to identify promising cultivars. Planting was done on raised beds (3m x 1.2m) at a spacing of 30 cm x 15 cm. A uniform dose of 35 kg  $P_2O_5$ , 70 kg  $P_2O_5$ , 140 kg  $K_2O$  and 20 T of FYM/ha was given as basal dose. The beds were mulched with greenleaf @ 1 T/ha immediately after planting. A second dose of 35 kg N/ha was top dressed on 67 days after planting. Other operations were carried out as per package of practices. Biometric characters were recorded on random plants. These plants were harvested separately and processed for studying various rhizome characters.

There was not much variation among the areal parts, except on the height and hence only the rhizome characters are focussed in this paper (Table 1). The highest yield of fresh rhizome (17.05 kg/plot) was obtained from the clone Armour. This was the lowest in the clone Alleppy yielding only 6 kg/plot. The weight of bulb/plant was almost uniform in all the clones but the weight of fingers varied significantly from 320 g/plant in "Alleppy" to 1,198 g/plant in Kodur type". Significant difference was noticed on the total drying percentage which was more conspicuous with the fingers rather than the bulbs, the clones Alleppy and Wynad local being on the top. Due to this variation the yield of cured rhizome/plot was not proportional to the yield of fresh rhizome. Significantly higher yield of cured rhizome/plot was obtained from the clone Kodur type. Other clones like vontimeta, T - Sunder Armour and Kutchipudi were at par but significantly superior to Wynad local.

The curcumin content of all the clones were estimated in collaboration with M/S Reckitt and Colman of England, Ltd., U. K. It was found that only six clones gave 4% or more of curcumin which is the economic limit for its profitable extraction. The highest curcumin content of 6.2% was obtained from the clone Alteppy followed by Etamulaka (5.63%), Kharedi local (4.35%), Tanaku (4.22%), Wynad local (4.17%) and Amrithapani (4%).

സംഗ്രഹം

ഇരുപതു ക്ലോണുകളിൽ പെട്ട മഞ്ഞൾ അമ്പലവയൽ ഗവേഷണകേന്ദ്രത്തിൽ നടന്നു കഴിയുന്നതിൽ ഏറ്റവും കൂടുതൽ വിളവുകിട്ടിയത് ആർമർ എന്ന ക്ലോണിൽ നിന്നായിരുന്നു.

Table 1  
Yield and Rhizome characters

Name of the clone	Wt. of fingers (g/plant)	Wt. of bulb (g/plant)	Total Wt of rhizome (g/plant)	Recovery of dried turmeric				Yield of cured turmeric (Kg/plot)	** Cur-cumin %
				5, n	% on finger	% on total rhizome	Yield of fresh rhizome (Kg/plot)		
Armoor	1,038.000	110.000	1,148.000	31.93	15.76	17.00	17.07	2.86	2.28
Amrithapani	861.330	108.000	689.330	34.93	16.53	18.13	14.73	2.60	4.00
Alleppy	320.000	74.000	394.660	28.93	22.63	23.86	6.00	1.39	6.20
Chayapasuma	1,059.330	112.660	1,172.000	31.30	16.30	17.46	13.76	2.34	3.02
Duggirala	726.660	115.370	842.000	30.83	16.33	18.20	13.10	2.37	1.90
Etamulaka	730.000	100.000	830.000	33.00	18.70	19.10	13.66	2.65	5.63
G. L. Puram I	1,109.330	123.330	1,232.660	32.56	16.00	17.40	15.33	2.62	2.38
G. L. Puram II *	746.000	109.330	855.330	32.33	15.13	15.63	13.70	2.12	2.61
Tanaku	570.000	102.000	672.000	31.36	20.13	21.76	10.33	2.24	4.22
Kutchipudi	818.660	107.330	926.000	33.43	15.53	17.26	16.66	2.87	1.49
Kodur Type	1,198.000	126.000	1,324.000	31.20	17.53	18.76	16.70	3.15	2.63
Kharadi Local	699.330	114.000	813.330	31.03	18.73	18.90	13.60	2.53	4.35
Nandyal Type	609.330	92.000	702.000	32.53	19.10	20.66	8.56	1.83	1.72
Rajpuri	682.660	93.330	776.000	31.23	16.93	17.96	11.96	2.13	3.64
Sugandham	878.660	125.330	1,004.000	32.06	16.56	18.20	14.03	2.55	2.05
Tekurpet	815.330	110.660	926.000	33.40	17.66	19.40	13.56	2.64	3.59
Type I	646.000	97.330	743.330	31.56	17.60	19.70	8.66	1.68	3.10
T. Sundar	802.660	130.660	933.330	32.00	18.06	19.70	15.06	2.96	2.28
Vontimeta	860.000	147.330	1,007.330	30.73	17.43	19.30	15.26	2.97	2.31
Wynad Local	528.000	90.000	617.330	28.23	22.03	22.80	9.66	2.15	4.17
CD (0.05)	298.110	NS	307.890	NS	2.212	2.44	3.46	0.101	—

\*\* Analysed by M/S Rackitt and Coleman of England Limited, U. K.

ആലപ്പി ക്ലോണിൽ വിളവ് ഏറ്റവും കുറവായിരുന്നു. ഉണക്കിയപ്പോൾ ഏറ്റവും കൂടുതൽ വിളവ് കൊടർ ടൈപ്പ് ക്ലോണിൽ നിന്നും കിട്ടി. ആറു ക്ലോണുകളിൽ മാത്രമാണ് വാണിജ്യാടിസ്ഥാനത്തിൽ ഉല്പാദിക്കാവുന്ന അളവിൽ (4 ശതമാനം) "കർകമിൽ" ഉണ്ടായിരുന്നത്. ഇതിൽ ഏറ്റവും കൂടുതൽ ആലപ്പി ക്ലോണിൽ ആയിരുന്നു.

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