

Table 1. Effect of chemical (NPK), organic and bio-fertilization on vegetative growth characteristics of *Amaranthus tricolor* L. plants during the 2000 and 2001 seasons.

Treatments	Plant height (cm)		Stem diameter (cm)		Number of branches / plant		Number of leaves /plant		Leaf area (cm ²)	
	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001
Control (PK)	42.68	60.47	0.72	1.15	2.56	2.53	34.50	54.33	17.26	20.58
N₁	94.72	95.47	1.53	1.59	5.30	5.83	162.00	152.10	30.73	26.45
N₂	95.65	109.80	1.77	1.77	7.83	6.67	207.30	208.00	15.45	23.72
Bio	47.66	72.97	0.82	0.70	4.33	3.67	49.56	40.67	15.55	20.37
½ N₁ + Bio	74.67	81.16	1.53	1.30	4.67	4.00	91.67	90.58	18.89	21.02
N₁ + Bio	97.92	86.82	1.39	1.55	6.33	5.00	114.20	164.20	20.34	26.76
CM	68.22	99.63	1.45	1.55	4.67	6.33	108.40	141.50	24.88	28.89
½ CM + Bio	102.50	109.30	1.80	2.15	6.00	5.00	184.50	218.80	34.63	32.71
LSD (0.05)	15.99	14.53	0.46	0.55	1.98	2.41	9.73	13.20	5.17	7.03

N₁ and N₂ = 3 or 6 g ammonium sulphate.

CM = Cattle manure.

Bio = Bio-fertilization.

Table 4. Effect of chemical (NPK), organic and bio-fertilization on the pigments [chlorophyll “a”, chlorophyll “b”, total chlorophyll (a+b), carotenoids and anthocyanin] (mg /g F.W.) in *Amaranthus tricolor* L. leaves during the 2000 and 2001 seasons.

Treatments	Chlorophyll “a”		Chlorophyll “b”		Total Chlorophyll		Carotenoids		Anthocyanin	
	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001
Control (PK)	0.247	0.248	0.163	0.138	0.410	0.386	0.172	0.043	1.059	0.932
N₁	0.358	0.255	0.217	0.150	0.575	0.405	0.131	0.092	1.491	1.419
N₂	0.383	0.338	0.214	0.198	0.597	0.536	0.165	0.142	1.652	1.795
Bio	0.303	0.233	0.208	0.173	0.511	0.406	0.115	0.077	1.409	1.405
½ N₁ + Bio	0.292	0.221	0.168	0.167	0.460	0.388	0.126	0.074	1.745	1.482
N₁ + Bio	0.223	0.235	0.178	0.182	0.401	0.417	0.079	0.102	2.079	2.130
CM	0.395	0.238	0.196	0.170	0.591	0.408	0.092	0.111	1.998	2.086
½ CM + Bio	0.582	0.397	0.196	0.189	0.778	0.586	0.265	0.176	2.397	2.246

N₁ or N₂ = 3 or 6 g ammonium sulphate. CM = Cattle manure.

Bio = Bio-fertilization.