https://doi.org/10.29321/MAJ.10.A04951

A STUDY OF THE ROOT SYSTEMS OF THE COMMON GRASSES AT THE LIVESTOCK RESEARCH STATION, HOSUR

By T. MURARI, B. Sc. (Oxon), F. L. S.

Superintendent, Livestock Research Station, Hosur.

Under tropical conditions the deciding factor for pasture is the moisture in the soil. In the localities where drought is regular, grasses that are adapted to resist longest will be the best suited for the locality. The grasses have mechanism for regulating evaporation of water from the lamina, and means to explore, in search of moisture and nutrition from the soil. It is with the object of knowing more about this aspect of the grass problems, that this study was taken up. The plants were individually very carefully dug up, their roots washed with water, air dried, and a number of measurements of roots taken. The results obtained are given in the table below :—

Name of grass	No. of plants studied.	Average length of roots	Depth to which they are seen penetrated	Area of the distribution of the roots	Nature of the adventitious roots	Remarks.
Andropogon contortus.	42	1'8"	1'6"	1'9" × 1'9"	Thin, hairy & dense	Roots have lateral growth
Andropogon pertusus	27	2'6"	2'3"	15" × 15"	do	Runs vertically down
Cynodon dactylon	20	Indefinite traced to 3 feet	Indefinite traced to 3 feet	Very wide spreading	Thin, very sparsely distributed Rhizomes more prominant	
Digitaria sanguinale	16	1'3"	1'2"	15" × 12"	Thin, hairy & medium bushiness	
Pennisetum cenchroides	24	1'7"	1'3"	12" × 12" in one case even up to 18" × 16"	Thick roots, very sparse going vertically down into the soil	
Eragrostis sp.	18	9.5"	8"	10" × 10"	Thin, & of medium bushiness	
Panicum sp.	18	8"	7"	10" × 10"	do	