In an experiment, the effect of phosphatic fertilizer on root weight, root diameter, forage yield and binding capacity of Dichanthium annulatum and Cenchrus ciliaris grasses was studied. It was revealed that root weight and binding factor significantly increased with the application of 40 kg P$_2$O$_5$/ha up to 30 cm depth. Binding factor increased by 66 per cent in case of Dichanthium annulatum and 37 per cent in case of Cenchrus ciliaris. Though effect of phosphate on forage yield was not statistically significant, there was increase in the yield of grass at P$_2$O$_5$ level.