

ABSTRAK

Penelitian ini berjudul Pengaruh Iklim, Mikoriza, dan Pupuk NPK terhadap Pertumbuhan Jagung di Lahan Gambut Pelalawan, Riau. Tujuan penelitian ini adalah mengetahui perubahan lingkungan selama penanaman jagung di lahan gambut, mengetahui hubungan antara iklim dengan pertumbuhan jagung di lahan gambut, dan mengetahui pengaruh pemberian mikoriza dan pupuk NPK terhadap karakteristik tanah gambut. Rancangan percobaan dengan menggunakan rancangan acak kelompok lengkap (RAKL) dengan dua faktor perlakuan dengan ulangan sebanyak tiga kali. Perlakuan yang akan di teliti meliputi pupuk NPK dengan mikoriza, pupuk NPK tanpa mikoriza, mikoriza tanpa pupuk NPK, dan kontrol. Perlakuan pupuk NPK diberikan tiga macam dosis yaitu 0 kg.ha^{-1} , 150 kg.ha^{-1} , dan 300 kg.ha^{-1} . Sedangkan perlakuan mikoriza diberikan dengan dua dosis yaitu tanpa mikoriza dan dengan mikoriza. Hasil Penelitian berupa perubahan lingkungan selama penanaman jagung di lahan gambut berupa suhu mengalami perubahan yang sama hingga akhir pengamatan, kelembaban udara sangat rendah kemudian meningkat hingga kelembaban maksimum kemudian menurun di akhir pengamatan, curah hujan tidak terjadi di awal pengamatan kemudian menurun dan tidak terjadi hujan hingga akhir pengamatan, dan radiasi matahari mengalami perubahan setiap hari. Hubungan antara iklim dengan pertumbuhan jagung di lahan gambut menunjukkan semakin kelembaban dan radiasi matahari dapat meningkat pertumbuhan jagung di lahan gambut. Pemberian mikoriza dan pupuk NPK dapat meningkatkan KPK dan pH aktual ($\text{pH H}_2\text{O}$).

Key word : Jagung, Iklim, Mikoriza, NPK, Gambut

ABSTRACT

This study entitled The Effect of Climate, Mycorrhiza, and NPK Fertilizers on Corn Growth in Pelalawan Peatland, Riau. The purpose of this study was to determine the environmental changes during the planting of corn on peat land, to know the relationship between climate and the growth of corn on peat land, and to know the effect of giving mycorrhizal and NPK fertilizer to the characteristics of peat soil. Experimental design using a completely randomized block design (RBDL) with two treatment factors with replications three times. The treatments that will be examined include NPK fertilizer with mycorrhizae, NPK fertilizer without mycorrhizae, mycorrhiza without NPK fertilizer, and controls. The treatment of NPK fertilizer is given three types of doses, namely 0 kg. ha⁻¹, 150 kg. ha⁻¹, and 300 kg.ha⁻¹. While the treatment of mycorrhizae is given in two doses namely without mycorrhiza and with mycorrhiza. The results of the study in the form of environmental changes during the planting of corn on peat land in the form of temperature undergoing the same change until the end of observation, the air humidity is very low and then increases to maximum humidity then decreases at the end of observation, rainfall does not occur at the beginning of observation then decreases and there is no rain until end of operation, and solar radiation changes every day. The relationship between climate and the growth of corn on peatlands shows that more moisture and solar radiation can increase the growth of corn on peatlands. The administration of mycorrhiza and NPK fertilizers can increase KPK and actual pH (pH H₂O).

Key word: Corn, Climate, Mycorrhiza, NPK, Peat