RINGKASAN

Produksi padi nasional terfokus pada lahan sawah irigasi terutama di Pulau Jawa, dengan terjadinya konversi lahan sawah ke kegiatan non pertanian, sehingga perlu dioptimalkan pengembangan di lahan kering. Permasalahan utama dari lahan kering adalah tingkat kesuburan tanah yang rendah. Pengelolaan kesuburan tanah dilakukan dengan teknologi pemupukan. Kandungan asam asetat yang ada dalam asap cair tempurung kelapa berperan sebagai pemercepat pertumbuhan tanaman. Penelitian ini bertujuan untuk mengetahui (1) pengaruh dosis pupuk N, P, K terhadap karakter fisiologi dan hasil padi gogo, (2) pengaruh konsentrasi asap cair tempurung kelapa terhadap karakter fisiologi dan hasil padi gogo, dan (3) pengaruh aplikasi dosis pupuk N, P, K dengan konsentrasi asap cair tempurung kelapa berbeda terhadap karakter fisiologi dan hasil padi gogo.

Penelitian berlangsung pada bulan Maret sampai dengan Juli 2018 di Desa Suro Kecamatan Kalibagor Kabupaten Banyumas. Rancangan yang digunakan adalah rancangan petak terbagi (Split Plot) dengan petak utama pupuk NPK: 1) P1 (dosis NPK 100% rekomendasi), 2) P2 (dosis NPK 50% rekomendasi), dan anak petak yaitu asap cair tempurung kelapa:1) A0(tanpa aplikasi asap cair tempurung kelapa, 2) A1(asap cair tempurung kelapa 2,5%), 3) A2(asap cair tempurung kelapa 5%), A3 (asap cair tempurung kelapa 7,5%), dan A4 (asap cair tempurung kelapa 10%). Kombinasi perlakuan yang diperoleh sebanyak 12 unit dan diulang tiga kali sehingga ada 36 unit percobaan. Variabel yang diamati meliputi : kandungan klorofil, kandungan prolin, jumlah malai per rumpun, jumlah gabah per rumpun, bobot gabah per rumpun, bobot gabah per petak efektif, bobot gabah per hektar, bobot 1000 biji, dan indeks panen.

Hasil penelitian menunjukkan bahwa aplikasi asap cair tempurung kelapa pada berbagai konsentrasi dan dosis N, P, K belum mampu memberikan pengaruh terhadap karakter fisiologi dan hasil padi gogo, namun dosis 50% pupuk N, P, K rekomendasi mampu menghasilkan bobot gabah sebesar 0,55 ton/ha setara dengan pemberian dosis 100% rekomendasi bobot gabah 0,54 ton/ha.

SUMMARY

National rice production is focused on irrigated rice fields, especially in Java, with the conversion of paddy fields to non-agricultural activities, so that development needs to be optimized on dry land. The main problem with dry land is low soil fertility. Management of soil fertility is carried out with fertilization technology. The content of acetic acid in coconut shell liquid smoke acts as a plant growth promotion. This research has done to know (1) the effect of N, P, K fertilizer dosage on physiological character and yields in upland rice, (2) the effect of concentrations of coconut shell liquid smoke on physiological character and yields in upland rice, and (3) the effect of application of N,P,K fertilizer dosage with the concentration of coconut shell liquid smoke on physiological character and yields in upland rice.

The study was conducted from March to July 2018 in Suro Village, Kalibagor District, Banyumas Regency. Research method that used was Split Plot design with the main plot of NPK fertilizer: 1) P1 (dosage of NPK 100% recommendation), 2) P2 (dosage of 50% NPK recommendation), and subplot namely coconut shell liquid smoke: 1) A0 (without the application of coconut shell liquid smoke, 2) A1 (coconut shell liquid smoke 2.5%), 3) A2 (coconut shell liquid smoke 5%), A3 (coconut shell liquid smoke 7.5%), and A4 (coconut shell liquid smoke 10%). The combined treatment obtained was 12 units and 3 times repetition so that there were 36 experimental units. The variables observed included: chlorophyll content, proline content, amount of panicles per hills, amount of grains per hills, grain weight per hills, weight of effective grain plot, weight of grain per hectare, weight of 1000 seeds, and harvest index.

The results showed that application of coconut shell liquid smoke at various concentrations and doses of N, P, K had not been able to influence the physiological character and upland rice yield, but a 50% dose recommendations of N, P, K fertilizer is able to produce grain weight per hectare of 0,55 tons/ha equivalent to a 100% dose recommendations of N, P, k fertilizer which can produce grain weight per hectare of 0,54 tons/ha.