

RINGKASAN

Persoalan pangan khususnya padi di Indonesia akan terus mengalami kendala dalam pemenuhannya. Pengembangan budidaya padi gogo di lahan kering merupakan alternatif strategis dalam rangka mendukung pemenuhan kebutuhan pangan nasional, dengan potensi yang cukup luas. Kendala pada sebagian besar (73%) lahan pertanian di Indonesia, baik lahan sawah maupun lahan kering adalah kandungan bahan organik yang rendah (< 2%). Namun demikian, penggunaan jenis pupuk anorganik yang tidak sesuai anjuran selalu diikuti dengan masalah lingkungan, baik terhadap kesuburan biologis maupun kondisi fisik tanah serta dampak pada konsumen. Penggunaan pupuk yang berimbang dan asap cair dosis optimal diharapkan mampu memberikan pertumbuhan dan hasil yang baik. Tujuan penelitian ini untuk mengetahui 1) pengaruh aplikasi pupuk N, P, dan K terhadap pertumbuhan dan hasil padi padi gogo varietas Situ Patenggang, 2) pengaruh aplikasi asap cair tempurung kelapa pertumbuhan dan hasil padi gogo varietas Situ Patenggang, 3) aplikasi asap cair tempurung kelapa dan pupuk N, P, dan K yang mampu meningkatkan pertumbuhan dan hasil padi gogo varietas Situ Patenggang, dan 4) dosis optimum asap cair tempurung kelapa dan pupuk N, P, dan K yang mampu meningkatkan hasil padi gogo varietas Situ Patenggang.

Penelitian dilaksanakan di Desa Cendana, Kecamatan Kutasari, Kabupaten Purbalingga pada ketinggian 360 m di atas permukaan laut (dpl). Penelitian dilakukan selama 6 bulan, dimulai bulan April sampai September 2016. Rancangan percobaan yang digunakan yaitu rancangan petak terbagi yang terdiri atas dua faktor. Petak utama yaitu dosis asap cair tempurung kelapa yang terdiri atas: tanpa asap cair tempurung kelapa (0 lt/ha), dilarutkan dengan rasio 1 : 100 (90 lt/ha) dan dilarutkan dengan rasio 1 : 200 (45 lt/ha). Anak petak yaitu dosis pupuk N, P, K terdiri atas 0%, 25%, 50% dan 100% (Dosis rekomendasi adalah 100 kg N/ha, 100 kg P₂O₅, 50 kg K₂O). Variabel penelitian yang diamati antara lain tinggi tanaman, jumlah daun, luas daun, jumlah anakan, bobot tajuk dan akar, panjang malai, jumlah malai, jumlah gabah per rumpun, bobot gabah per rumpun, bobot 1000 biji, bobot biji per petak efektif dan bobot hasil per hektar.

Berdasarkan hasil penelitian menunjukkan bahwa 1) aplikasi asap cair tempurung kelapa belum mampu meningkatkan pertumbuhan dan hasil 2) aplikasi asap cair tempurung kelapa pada komponen pertumbuhan maupun hasil menunjukkan berbeda sangat nyata terhadap tinggi tanaman dan jumlah malai, 3) aplikasi N,P,K 50% mampu meningkatkan karakter bobot segar tajuk vegetatif dan bobot biji isi per rumpun.

SUMMARY

The issue of food, especially rice in Indonesia will be continued to experience obstacles in their fulfillment. The development of upland rice cultivation in dry land is of strategic alternatives in order to support the national food needs, with potentially vast. Constraints on the majority (73%) of agricultural land in Indonesia, both wetland and dry land is organic matter content is low (<2%). However, the use of inorganic fertilizers is not as recommended always followed by environmental problems, both to the fertility of soil biological and physical condition as well as the impact on consumers. The use of balanced fertilizers and liquid smoke optimal dose is expected to deliver growth and good results. The objectives of this study were 1) the effect of the application of fertilizer N, P, and K on the growth and yield of rice upland rice varieties Situ Patenggang, 2) the effect of the application of coconut shell liquid smoke growth and yield of upland rice varieties Situ Patenggang, 3) application of coconut shell liquid smoke and fertilizer N, P, and K were able to increase growth and yield of upland rice varieties Situ Patenggang, and 4) the optimum dose of coconut shell liquid smoke and fertilizer N, P, and K were able to increase the yield of upland rice varieties Situ Patenggang.

The research was conducted in the village of Cendana, District Kutasari, Purbalingga at an altitude of 360 m above sea level (asl). The study was conducted for 6 months, starting in April to September 2016. The experimental design used is split plot design consisting of two factors. The main plot is a dose of coconut shell liquid smoke consisting of: without liquid smoke coconut shell (0 lt / ha), was dissolved with a ratio of 1: 100 (90 l / ha) and dissolved with a ratio of 1: 200 (45 l / ha). The subplots are dose of fertilizer N, P, K consists of 0%, 25%, 50% and 100% (dosage recommendation is 100 kg N / ha, 100 kg P₂O₅, 50 kg K₂O). The research variables were observed, among others, plant height, leaf number, leaf area, number of tillers, the weight of the canopy and roots, panicle length, number of panicles, number of grains per panicle, grain weight per panicle, weight of 1000 seeds, seed weight per plot effective and weights the yield per hectare.

The results showed that the 1) application of coconut shell liquid smoke has not been able to increase the growth and yield 2) application of coconut shell liquid smoke on a growth component and the results showed highly significant on plant height and number of panicles, 3) application of N, P, K 50 % able to improve the character of vegetative canopy fresh weight and content of grain weight per panicle.