

## RINGKASAN

Padi gogo merupakan tanaman pangan yang banyak dibudidayakan di lahan kering. Permasalahan utama dari lahan kering adalah tingkat kesuburan tanah yang rendah. Pengelolaan kesuburan tanah dilakukan dengan teknologi pemupukan. Kehadiran gulma di suatu areal pertanaman memberikan dampak negatif terhadap tanaman. Gulma memiliki daya kompetitif yang tinggi sehingga memungkinkan terjadinya persaingan dalam memperebutkan cahaya, CO<sub>2</sub>, air, unsur hara, dan ruang tumbuh yang digunakan secara bersamaan. Beberapa penelitian menunjukkan bahwa asap cair dapat berperan sebagai pestisida. Penelitian ini dilakukan untuk mengetahui dosis terbaik pupuk NPK, dan asap cair tempurung kelapa terhadap pertumbuhan gulma, intensitas serangan hama dan penyakit, serta hasil padi gogo.

Penelitian berlangsung dari bulan April sampai Juli 2017 di Kebun Benih Palawija Kalicacing, Desa Kalimandi, Kecamatan Purwareja Klampok, Kabupaten Banjarnegara. Rancangan yang digunakan adalah rancangan petak terbagi (*Split Plot*) dengan petak utama pupuk NPK: 1) P1 (dosis NPK 50% rekomendasi), 2) P2 (dosis NPK 100% rekomendasi), dan anak petak yaitu asap cair tempurung kelapa: 1) A0 (tanpa aplikasi asap cair tempurung kelapa), 2) A1 (asap cair tempurung kelapa 5%), 3) A2 (asap cair tempurung kelapa 2,5%), 4) A3 (asap cair tempurung kelapa 1,67%), 5) A4 (asap cair tempurung kelapa 1,25%), dan 6) A5 (asap cair tempurung kelapa 1%). Kombinasi perlakuan yang diperoleh sebanyak 12 unit dan diulang tiga kali sehingga ada 36 unit percobaan. Variabel yang diamati meliputi: *Summed Dominance Ratio* (SDR), indeks kesamaan gulma, intensitas serangan hama dan penyakit, jumlah malai per rumpun (helai), jumlah gabah per rumpun (butir), persentase gabah isi per rumpun (%), bobot gabah per rumpun (g), bobot gabah 1000 biji (g), bobot gabah per petak efektif (kg), dan bobot gabah per hektar per hektar (ton/ha).

Hasil penelitian menunjukkan bahwa pemberian pupuk NPK dan aplikasi asap cair tempurung kelapa belum mampu menekan pertumbuhan gulma, intensitas serangan penyakit 40 hst dan 70 hst serta belum mampu meningkatkan jumlah malai, jumlah gabah per rumpun, bobot gabah per rumpun, bobot gabah petak efektif dan bobot gabah per hektar (ton/ha).

## **SUMMARY**

*Upland rice is a crop that is widely cultivated in dry land. The main problem in dry land is low soil fertility. Management of soil fertility can be performed with fertilization technology. Presence of weeds in planted area give negative impact to the plant. Weed has high competitive power thus enabling occurrence competition in the fight for light, CO<sub>2</sub>, water, nutrient, and growing space that use simultaneously. Some research show that liquid smoke can have a role as pesticide. This research has done to know the best dosage of NPK fertilizer and coconut shell liquid smoke against weed growth, pest attack and disease intensity, and upland rice yield.*

*This research was conducted from April to July 2017 in Palawija Kalicacing Seed Garden located in Kalimandi Village, Klampok District, Banjarnegara Regency Reserach method that used was Split Plot with the main plot of NPK fertilizer: P1 (dosage of NPK 50% recommendation); 2) P2 (dosage of NPK 100% recommendation 100%); and sub plot of coconut shell liquid smoke 1) A0 (without coconut shell liquid smoke application); 2) A1 (coconut shell liquid smoke 5%); 3) A2 (coconut shell liquid smoke 2,5%); 4) A3 (coconut shell liquid smoke 1,67%); 5) A4 (coconut shell liquid smoke 1,25%); and 6) A5 (coconut shell liquid smoke 1%). The combined treatment obtained was 12 units and 3 times repetition so that there were 36 experimental units. The variables observed were: Summed Dominance Ratio (SDR), index of weeds, pest attack and disease intensity, amount of panicles (blade), amount of productive panicles per clumps (g), grain weight per clumps (g), content of grain presentation (%), weight of 1000 seeds (g), weight of effective grain plot (kg), and weight of grain per hectare (ton/ha).*

*The results from this research show that application of NPK fertilizer and coconut shell liquid smoke had not been able to compress the disease intensity of 40 hst and 70 hst and have not been able to increase the number amount of panicles (blade), amount of productive panicles per clumps (g), grain weight per clumps (g), content of grain presentation (%), weight of effective grain plot (kg), and weight of grain per hectare (ton/ha).*