RINGKASAN

Budidaya padi gogo tidak terlepas dari serangan hama, penggunaan pestisida sintetik yang berlebihan dapat mengganggu ksehatan manusia dan hewan, serta mencemari lingkungan. Oleh karena itu penggunaan varietas tahan kekeringan seperti padi gogo perlu lebih dikembangkan dengan memperhatikan keseimbangan ekosistem melalui penerapan pestisida organik, yaitu asap cair tempurung kelapa dan sistem tanam tumpangsari padi, yaitu tumpangsari padi dan rumput. Penelitian ini bertujuan untuk mengetahui pengaruh aplikasi asap cair tempurung kelapa dan sistem tanam tumpangsari padi gogo rumput terhadap hama, musuh alami, dan hasil padi gogo.

Penelitian dilaksanakan di Desa Cendana, Kecamatan Kutasari, Purbalingga, pada bulan Maret sampai Agustus 2015. Penelitian dilakukan dengan rancangan petak terbagi. Petak utama berupa sistem tanam tumpangsari padi gogo-rumput (monokultur, padi-rumput gajah, dan padi-sereh) dan anak petak berupa dosis asap cair tempurung kelapa (tanpa aplikasi, dilarutkan dengan konsentrasi 1:200, dan dilarutkan dengan konsentrasi 1: 400). Data yang dikumpulkan melalui jenis dan jumlah famili hama dan musuh alami yang tertangkap, (pengambilan sampel dilakukan dengan menggunakan perangkap kuning dan perangkap *pitfall*), dan intensitas serangan hama. Hasil dan komponen hasil yang dianalisis meliputi bobot 1.000 gabah, bobot gabah isi per rumpun, jumlah malai per rumpun, jumlah malai produktif per rumpun, jumlah gabah isi per malai, jumlah gabah isi per rumpun, panjang malai, bobot gabah petak efektif, dan bobot gabah per hektar.

Hasil pengamatan menunjukkan bahwa famili hama dan musuh alami yang tertangkap di lahan penelitian sebanyak 10 ordo yang terdiri dari 25 famili dengan jumlah individu sebanyak 2182. Intesnitas serangan hama menunjukkan asap cair tempurung kelapa belum mampu menekan intensitas serangan. Hasil padi gogo menunjukkan bobot 1.000 gabah, jumlah gabah isi per rumpun, jumlah malai produktif per rumpun, dan bobot gabah isi per rumpun yang beragam antar tumpangsari padi-rumput dan asap cair tempurung kelapa. Tumpangsari yang menghasilkan bobot 1.000 gabah, jumlah gabah isi per rumpun, jumlah malai produktif per rumpun, dan bobot gabah isi per rumpun yang tinggi adalah sistem tanam monokultur dengan aplikasi asap cair 1:400 dan sistem tanam monokultur dengan aplikasi asap cair 1:200. Aplikasi asap cair yang mendukung bobot 1.000 gabah, jumlah gabah isi per rumpun, jumlah malai produktif per rumpun, dan bobot gabah isi per rumpun adalah aplikasi asap cair 1:400.

SUMMARY

Upland rice cultivation can not be separated from pests, excessive use of synthetic pesticides can disrupt's Health humans and animals, and pollute the environment. Therefore the use of drought-resistant varieties such as upland rice more developed need to pay attention to the balance of the ecosystem through the adoption of organic pesticides, wood vinegar coconut shell and rice intercropping systems is intercropping rice and grass. This study aims to determine the effect of application of wood vinegar coconut shell and intercropping system upland rice-grass against pests, natural enemy, and the results of upland rice.

The study was conducted in Kutasari village, district of Purbalingga, on March to August 2015. The experiment design in the study was split plot design. Intercropping system upland rice-grass (monocultures, padi-padi, and elephant grass-Lemongrass) as main plot and concentration of wood vinegar coconut shell (without application, dissolved concentrations 1:200, and dissolved concentrations 1:400) as sub plot. The data collected include the type and the amount of the family of pests and natural enemy. Sampling was done using yellow traps and pitfall traps. The intensity of the attacks of pests, and results include the weighting upland rice 1.000 grain weight, grain content per hill, number of panicles per hill, number of panicles per productive per hill, number of grain per panicle, total content of grain contents per hill, long malai swaths of grain weight, effective, and weight of grain per acre.

The were show that the family of pests and natural enemy in the study were 10 Ordo, consist 25 Family with individuals number 1913. Pest attack intensitas showed the wood vinegar coconut shell has not been able to suppress the intensity of the attack. Upland rice results showed the influence 1000 grain weight, a number of grain the contents per hill, a number of productive panicles per hill, and weight of grain the contents per hill between intercropping of rice and wood vinegar grass-coconut shell. Intercropping that generates a 1.000 grain weight, a number of grain the contents per hill, a number of productive panicles per hill, and weight of grain the contents per hill in monoculture systems is high with the application of wood vinegar 1:400 and monoculture cropping systems with application of lwood vinegar 1:200. liquid smoke Application which supports a number of 1.000 grain, a number of grain the contents per hill, a number of productive panicles per hill, and weight of grain the contents per hill is the application of wood vinegar 1:400.