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Farmer Community Empowerment Through Training on Making Simple Rice Husk Briquettes to Control Rice Rat Pest

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Abstract. Rats are one of the main pests of rice plants. The problem of rat pests is often a factor that can reduce agricultural production, especially rice plant. Kota Datar village, Hamparan Perak District, is one of the areas where rice is grown a lot. One alternative that can anticipate the problem of environmentally friendly field mice is to encourage farmers to make briquettes from rice husks. This service was carried out in August-October in the Kota Datar village, Hamparan Perak District, Deli Serdang Regency. The results obtained are to find a solution for controlling rice rat pests that are environmentally friendly by utilizing rice husk leftover from rice milling, namely making simple briquettes

Keyword: Alternative, Briquettes, Pests, Environmentally Friendly

Abstrak. *Tikus merupakan salah satu hama utama pada tanaman padi. Permasalahan hama tikus ini sering kali menjadi faktor yang dapat mengurangi produksi pertanian khususnya tanaman padi. Desa Kota Datar Kecamatan Hamparan Perak adalah salah satu daerah yang banyak membudidayakan padi. Salah satu alternatif yang dapat mengantisipasi permasalahan hama tikus sawah yang ramah lingkungan yaitu menganjurkan petani untuk membuat briket dari sekam padi. Pengabdian ini telah dilaksanakan pada Bulan Agustus-Oktober di desa Kota Datar Kecamatan Hamparan Perak Kabupaten Deli Serdang. Hasil yang didapatkan adalah menemukan solusi cara pengendalian hama tikus sawah yang ramah lingkungan dengan memanfaatkan sekam padi sisa penggilingan padi yaitu membuat briket sederhana.*

Kata Kunci: *Alternatif, Briket, Hama, Ramah Lingkungan*

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1. Pendahuluan

Kota Datar is one of the villages in the Hamparan Perak sub-district, Deli Serdang Regency, North Sumatra province, Indonesia. This village is located about 22 km northwest of Medan city and about 11 km north of Binjai city. Generally, the people in this village make a living in the agricultural sector. The main commodity cultivated in this village is ricefield [1].

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Based on data from (Badan Pusat Statistik Provinsi Sumatera Utara, 2020) the average lowland rice production in Hamparan Perak District in 2017-2020 has increased by 7.20ton/ha-8.13ton/ha. The increase in the average yield of ricefield production in this area cannot be separated from the special problem faced, namely the attack of the rice rat (*Rattus argentiventer*) [2].

This is one of the risks of lowland rice farming experienced by farmers in general. Ricefield mice are the main pests of rice plants with the highest puso attack rate. The area of rat attack in Indonesia reaches 66,087 ha/year with 1,852 ha of them experiencing puso [2]

The next problem is that the rice husk left from the rice mill have not been utilized so that they experience accumulation. Based on information obtained from farmers in the area, the problem of rice rats that are rampant in cultivated areas is controlled by using rat poison from chemicals that are thought to have an impact on the environment because they are not environmentally friendly. Another problem is the lack of knowledge of the farming community to use the milled rice husks to be used so that they are very dependent on chemicals. In fact, this area is quite potential because it has a large area of rice fields [3].

Based on the problems above, the team found solutions to overcome the problems faced by farmers by carrying out training activities for making simple briquettes from rice husks. The purpose of this activity is to increase the knowledge and motivation of farmers to utilize milled rice husks so that they are not wasted and through the resulting products can reduce the attack of rice rats on cultivated rice plants [4].

2. Metode Pelaksanaan

This service activity has been carried out from August to October 2021 in the Kota Datar village, Hamparan Perak District, Deli Serdang Regency. The partner in this activity is the Farmers Group Association (Gapoktan) Namora. The tools used in this activity are briquette press, bucket, gas cylinder, compost and shovel. The materials used are husk, sulfur, starch glue and plastic terpal. This service activity includes two stages, namely socialization on how to make husk briquettes and direct practice by farmers using the materials provided.

3. Hasil dan Pembahasan

This community service activity was carried out from August to October 2021 together with the Namora Farmers Group Association (Gapoktan) in the village of Kota Datar, Hamparan Perak District, Deli Serdang Regency. The first activity with partners was carried out in August discussing the problems faced by partners as well as discussing visits in providing material on how to make husk briquettes to farmers. Then the next activity is direct practice on making husk briquettes.

3.1 Extension Activities

This activity aims to provide knowledge and motivation to farmers on how to use rice husks leftover from rice mills to make simple briquettes that aim to control rice rat pests. The population of paddy rats in rice fields planted with a cropping index of 3 times a year tends to increase in each growing season, [3].

Based on the information submitted by the head of Gapoktan Namora, the opinion is in accordance with the problems faced by farmers in the field. This outreach activity was attended by the head of the Kota Datar village, the Dean of the USU Faculty of Agriculture, the Chair and Deputy Chair of the Namora Gapoktan and members of farmer groups. This activity was opened with remarks by the village head and the dean of the Faculty of Agriculture and continued with the presentation of material on how to make husk briquettes.

Gambar 1. Implementation of outreach activities with the Namora Gapoktan, Kota Datar Village, Hamparan Perak District, Deli Serdang Regency

3.2 Husk Briquette Making Training

The second stage activity is the practice of making simple husk briquettes by farmers who are guided directly by the Community Service Team with the materials and tools that have been provided. At this stage of the activity, the team guides and guides farmers in the training.

From this activity, it is hoped that farmers will be able to make husk briquettes independently as an additional fumigator for rice rat pests. Based on information from farmers that farmers find it difficult to find rat holes in the fields, especially in flooded rice fields.

This is in line with the opinion [4] which states that the facts on the ground show that some of the weaknesses of farmers in carrying out rice rat control measures include the lack of observation of the presence of rats, individual control, and inconsistent planting time.

Gambar 2. Training of making husk briquettes

4. Kesimpulan

Based on the activities that have been carried out, it can be concluded that these activities provide many benefits to farmers in terms of utilizing agricultural waste in the form of rice husks which are the main ingredients for making briquettes so that they are not wasted and as an alternative to reducing the excessive use of chemical pesticides in controlling rat pests.

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DAFTAR PUSTAKA

[1] Badan Pusat Statistik (BPS) Provinsi Sumatera Utara. *Kecamatan Hamparan Perak Dalam Angka*. BPS: Medan. 2020

[2] Pusat Data dan Sistem Informasi Pertanian (Pusdatin Pertanian). *Statistik iklim, organisme pengganggu tanaman dan dampak perubahan iklim 2015-2018*. Sekertariat Jenderal, Kementerian Pertanian. http://epublikasi.setjen.pertanian.go.id [22 November 2019]. 2018

[3] Siregar H. M Priyambodo S dan Hindayana, D. Hubungan tingkat pengetahuan, sikap, dan tindakan petani dalam penerapan pengendalian hama tikus terpadu di ekosistem sawah irigasi. hal. 31-439 Dalam Irianto Junedi, H Nusifera S Fathoni, Z (Eds.) *Prosiding Semirata BKS-PTN Wilayah Barat Bidang Ilmu Pertanian: Inovasi Pertanian Berbasis Sumberdaya Lokal Berorientasi Entrepreneurship* Jambi 27-29 Agustus 2019. 2019

[4] Sudarmaji dan Herawati, N. A Perkembangan populasi tikus sawah pada lahan sawah irigasi dalam pola indeks pertanaman padi 300 *Penelitian Pertanian Tanaman Pangan*. 1(2) hal: 125-131. 2017