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Farmer Behavior in the Use of Pesticides on Rice Plants

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Abstract: This study aims to determine the behavior of farmers in the use of pesticides on rice plants in Lingom Village, Indrapuri District, Aceh Besar Regency. The sample in this study was 15% of the predetermined population of 30 farmers in Lingom Village, Indrapuri District, Aceh Besar Regency who used pesticides on rice plants. Data were collected through observation, interviews and questionnaires. The results of data analysis show that farmers in Lingom Village, Indrapuri District, Aceh Besar Regency use pesticides in processing rice plants. The results showed that the behavior of farmers in the use of pesticides was in accordance with existing provisions. The pesticide used is obtained from the store, further mixed with water put in a spray tube. Pesticides that have been filled in tubes, then sprayed on rice plants. Spraying is carried out using personal protective equipment such as aprons, clothing and masks. Furthermore, farmers clean the equipment and clothes that have been used to make them clean and safe. Similarly, equipment and clothing that have been used are cleaned separately from other equipment and clothing. So as not to contaminate other family clothes during spraying, not to consume food and drinks when spraying so as not to be exposed to toxins contained in pesticides, so as not to experience injury.

Keywords: Behavior; Farmers; Pesticides; Rice crops

Introduction

Indonesia is known as an agricultural country because the main livelihood of the Indonesian people is farming. There are a variety of agricultural crops in Indonesia. But unfortunately, today Indonesia's agricultural land is getting narrower due to industrialization (Sugianto et al., 2018). Green land turns barren and arid, natural disasters are inevitable. In addition, what is also concerning is the mindset of people who still often underestimate the agricultural sector. That is why Indonesia's agricultural output is not comparable to the available natural resources (Heryawan et al., 2016).

The agricultural sector is a sector that has an important role in the economic sector in Indonesia. In earning their income, farmers carry out various activities by trying to develop possibilities in agriculture economically and make a profit if the location of the farm is appropriate. The income in this farming business also helps farmers in developing their farms, so it is hoped that agriculture is expected to help the poverty rate in Indonesia (Sofhia et al., 2020).

Rice plants are very important cultivated plants for the people of Indonesia. The majority of Indonesians consume rice as a tool to meet food needs (H. Situmorang et al., 2021). According to Utama et al. (2015), the grouping of rice based on the environment where it grows consists of swamp rice, rice paddy fields, and dryland rice (gogo). The problems faced in rice cultivation activities are increasingly diverse, such as global climate change which has an impact on climate anomalies, encouraging the development of pests and diseases that threaten the safety of rice plant growth. As a result, agricultural profits decreased because they had to be reduced by higher pest control costs and decreased production quality so that they could not compete in the market (Nuryanto, 2018).

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Holticulture is a science that studies the cultivation of vegetables, fruits, flowers, and ornamental plants. Holticulture is one of the agricultural sectors that has the potential to be developed because it has a fairly high economic value (Lubis et al., 2021). Horticultural crops are needed at all times in large quantities and good quality, affordable prices and safe for consumption. People today have begun to tend to consume vegetables and fruits and reduce foods that control. Horticultural commodities include vegetables, fruits, medicinal plants, and mushrooms (Ervayenri et al., 2016). Horticultural crops that have the potential to be developed, of course, must be supported by good land, planting media, and fertilizers in order to get good production results as well.

Pesticides are a type of poison used to eradicate pests such as caterpillars, grasshoppers, rats, birds on rice plants. Pesticides are often used by farmers so that the rice planted does not experience severe damage due to pests. As a result, rice affected by pests will be damaged and yields are not satisfactory (Wati et al., 2022). Pesticides have many brands sold in the market. Some pesticide brands that are usually used by farmers sold in the market such as Tenano, Viper, Columbus, Cypermax, and Boycarlo Spontaneous Brands and so on (Wati et al., 2022). Pesticides have many brands sold in the market.

In Indonesia, the use of pesticides is still relatively high. This is indicated by the increase in the use of pesticide brands nationally (Prajawahyudo et al., 2022). According to data from the Ministry of Agriculture of the Republic of Indonesia in 2016, the use of pesticides has reached 3,207 registered and permitted brands (Directorate General of Agricultural Infrastructure and Facilities, 2016).

The group of substances known as pesticides relates to substances used as insecticides, fungicides, herbicides, rodenticides, molluscides, and nematicides (Bortoli et al., 2018). It is generally accepted that pesticides play an important role in agricultural development because they can reduce losses of agricultural products and increase affordable food yields and quality (Lorenz et al., 2022).

Urging to increase food production and control insect-borne diseases, the development of pesticides increased during World War II (1939-1945). In addition, from the 1940s onwards, the increased use of synthetic plant protection chemicals allowed for further increases in food production (Bortoli et al., 2018). In addition, worldwide pesticide production is increasing at a rate of about 11% per year, from 0.2 million tons in the 1950s to more than 5 million tons in 2000 (Carvalho, 2017). Three billion kilograms of pesticides are used worldwide each year (Hayes et al., 2017), while only 1% of total effective pesticides are used to control insect pests on target crops. Large amounts of pesticides remain penetrating or reaching non-target crops and environmental media. As a result, pesticide contamination has polluted the environment and caused negative impacts on human health (Hernández et al., 2013).

To increase productivity and control of pests and diseases, farmers believe this can be overcome by using pesticides. With this belief, the use of pesticides is increasing every time (Zulfikar, 2017). On the other hand, in addition to increasing the yield of agricultural products, pesticides also have negative impacts such as reduced biodiversity, broad-spectrum pesticides can kill target pests, parasitoids, predators, hyperparasites and non-target creatures such as bees, pollinating insects, worms and carrion insects (Elfianto et al., 2020).

Based on the above background, the researcher is interested in conducting a study entitled Review of Farmer Behavior in the Use of Pesticides on Rice Plants in Lingom Village, Indrapuri District, Kabupataen, Aceh Besar.

Method

Time and Place of Research

This research was conducted in Lingom Village, Indrapuri District, Aceh Besar Regency. The research time is June 10 to June 14, 2023.

Population and Research Sample

The population in this study is all farmers in Lingom Village, Indrapuri District, Aceh Besar Regency, totaling 209 people, the sample in this study is some of those selected as research subjects of 30 people.

Sampling Techniques

The sampling technique is carried out randomly (random sampling) meaning that each member of the population has the same opportunity and opportunity to be selected as a sample. Researchers use this technique by considering the condition of subjects who are difficult to meet and willing to become research subjects.

Data Collection Techniques

The instruments used for data collection in this study were questionnaires, observations and interviews.

Data Processing Techniques

As for the data processing technique of this study, the author uses simple statistics with a frequency distribution method of calculating the percentage of all alternative answers to each question so that it becomes a concept that can be concluded then the questionnaire data obtained is processed using the percentage formula as follows:

$$F = \frac{N}{P} \quad (1)$$

Where:
F = Frequency being searched for percentage
N = Number of Frequencies
P = Percentage Number

Result and Discussion

The results of this study are divided into three parts, namely the results of research from the distribution of questionnaires, interviews and observations. Researchers distributed questionnaires and conducted interviews to obtain more detailed information about information that had not been obtained from the answers contained in the questionnaire. Researchers describe the results of the study as follows:

Questionnaire Analysis

Based on the results of the study, it is known that 21 farmers (70%) use pesticides on rice plants, 7 people (23.33%) always use pesticides and 2 people (6.67%) sometimes use them. Based on the answers given, it can be known that farmers use pesticides on rice plants. In line with research conducted by Cahyani et al. (2022), many glutinous rice farmers in Penanggungan Village still spray pesticides as a way to control Plant Disturbing Organisms (OPT) that attack cultivated plants.

The use of pesticides on rice plants is carried out continuously It is known that as many as 6 farmers (20%) often use pesticides on rice plants, 3 people (10%) once a week, 12 people (40%) once a month and 9 people (30%) only use pesticides if there are many pests. Based on the analysis above, it can be seen that farmers use pesticides once a month or there are only many pests on rice plants. The use of pesticides makes the harvest better can be seen from the results of the study that 19 farmers (63.34%) use pesticides provide better harvests, 7 people (23.33%) say always better and 3 people (10%) say sometimes the harvest is good and 1 person (3.33%) states very rarely the harvest is good. Thus it can be concluded that the use of pesticides gives better yields.

The results of research in Lingom Village found that 21 farmers (70%) in Lingom Village, Indrapuri District used pesticides, 9 people (30%) stated that almost all farmers used them. Based on data analysis, it can be seen that almost all farmers use pesticides on their rice plants.

Based on the results of the study, 18 farmers (60%) stated that they get pesticides from stores, 3 people (10%) from agricultural extension services, 5 farmers (16.67%) get them from agents/ sellers and 4 people (13.33%) get them from other farmers. Based on the results of the study, it was found that 19 farmers (63.34%) stated that the pesticides obtained or purchased were still in good condition, 7 farmers (23.33%) stated good, 3 people (10%) stated pretty good and 1 farmer (33.33%) stated not good. Based on the answers above, it can be seen that the condition of pesticides obtained by farmers is still in very good condition so that it is suitable for use on rice plants.

Based on the results of the study, it can be seen that 21 farmers (70%) stated that the condition of the pesticides purchased was neatly wrapped, still intact and there was a clue label, 7 students (23.33%) the condition of the pesticides purchased was intact and there was no instruction label and 2 people (6.67%) stated that they were wrapped and not neat, while 2 farmers (6.67%) stated that they were not wrapped. So it can be known that farmers use pesticides that are in good condition and decent. Based on the results of the study, it can be seen that 12 farmers (40%) said they were very familiar with the use of pesticides, 6 people (20%) expressed understanding, 9 people said they did not understand and 3 farmers (10%) said they did not understand. Based on the analysis above, it can be seen that farmers in general are familiar with the use of pesticides.

Based on the results of the study, it can be seen that 19 farmers (63.34%) said they threw pesticide packaging in any place, 7 people (23.33%) said they threw garbage in the garbage can, 3 people (10%) said they buried it and only 1 person (3.33%) said they burned pesticide packaging. Farmers throw pesticide packaging anywhere. Based on the results of the study, it can be seen that 12 farmers (40%) store pesticides in high places, 9 people (30%) store them in places far from children, 4 people (13.33%) far from food and 5 people (16.67%) say they store them in locked places. Based on data analysis, it can be seen that farmers store pesticides in a safe place so that they are out of reach of children and food.

Based on the results of the study, it can be seen that 18 farmers (60%) use personal protective equipment when spraying pesticides, 3 people (10%) say they use it often, 5 people (16.67%) say they rarely use protection and 4 people (13.33%) say they don't use protection. Based on the answers obtained, it can be seen that farmers use protective equipment to secure themselves when spraying pesticides. In line with research conducted by the level of behavior of glutinous rice farmers towards the use of PPE, it can be used as a basis for counseling to glutinous rice farmers related to farmers' health and work safety in pesticide applications in the field.

Based on the results of the study, it can be seen that 30 farmers (100%) stated that they did not spray pesticides during strong winds. This is due to the difficulty in using spraying and the uneven distribution

of sprayed pesticides. Based on the results of the study, it can be seen that 3 people (10%) said spraying pesticides against the direction of the wind, 7 farmers (23.33%) said it was okay as long as it was safe and 9 people (30%) said sometimes it could be done if urgent and 11 people (36.67%) said no. Based on the answers given, it can be seen that farmers do not spray pesticides downwind.

Based on the results of the study, it can be seen that 30 farmers (100%) said they did not eat or drink when spraying pesticides on rice plants. This is because pesticides are toxic materials that can harm farmers if they eat or drink. Therefore, farmers do not eat or drink even though they are very hungry. Based on the results of the study, it can be seen that all 30 farmers (100%) stated that they did not smoke when spraying pesticides. This is done in order to avoid the dangers of toxins contained in pesticides.

Based on the results of the study, it can be seen that 21 farmers (70%) who stated bathing after finishing spraying pesticides on rice plants and 9 farmers (30%) stated that they sometimes took a bath. Based on data analysis, it can be seen that the petni took a bath to clean themselves after spraying pesticides on rice plants. Based on the results of the study, it can be seen that 17 00 thousand farmers (100%) stated using shampoo to ensure that the poison is no longer attached to the body, 8 00 farmers (26.67%) stated using shampoo to be clean, 3 people (10%) stated that sometimes bathing using soap and shampoo if supplies last and 2 people (6.67%) stated not using shampoo. From the above answer it can be concluded that farmers use soap and shampoo for bathing after spraying pesticides on rice plants.

Based on the results of the study, it can be seen that 11 farmers (36.67%) stated changing clothes after spraying pesticides, 9 farmers (30%) said no, 6 people (20%) stated sometimes and 4 farmers (13.33%) stated often. From the above jaaban it can be concluded that farmers change their clothes after spraying pesticides on rice plants. Based on the results of the study, it can be seen that 30 farmers (100%) stated that spraying pesticides rarely damages rice crops. So that farmers do not feel a loss if they use pesticides on rice plants.

Based on the results of the study, it can be seen that 16 farmers (53.33%) said the use of pesticides on rice crops made crop yields greatly increase, 3 people (10%) stated that it increased more, 9 people (30%) said it was quite increased and 2 people (6.67%) said it did not increase. Based on the analysis above, it can be seen that the use of pesticides further increases crop yields on rice plants. Based on the results of the study, it can be seen that 6 farmers (20%) who stated that the use of pesticides provides safety for rice consumed by the community, 7 0rang (23.33%) stated slightly safe, 9 people (30%) stated unsafe and only 8 people (26.67%) stated do not know,. Thus, it can be concluded that the use does not harm the rice consumed by the community.

Based on the results of the study, it can be seen that all farmers (100%) stated that the rice consumed for themselves also uses pesticides. This is done so that rice is not disturbed by plant pests, sengga provides benefits for farmers. Based on the results of the study, it can be seen that 2 farmers (6.67%) stated that farmers use different pesticides, 6 people (20%) stated always, 10 people (33.33%) stated sometimes and 12 people (40%) stated very rarely. From the answer ditas can be concluded that farmers do not use different pesticides. This is because farmers are more interested in using pesticides that are often used and proven to be good for rice plants.

Based on the results of the study, it can be seen that 3 farmers (I0%) stated that there are, but only a few farmers do not use pesticides, 7 farmers (23.33%) stated that only some farmers do not use them, and 20 farmers (66.67%) stated that all farmers use pesticides to spray on rice plants. Based on the answers given, it can be seen that farmers generally constrict pesticides on rice plants. Based on the results of the study, it can be seen that II farmers (36.67%) said farmers had attended counseling on the use of pesticides, 7 people (23.33%) stated always 2 people (6.67%) said sometimes and I0 people (3.33%) stated very rarely. Based on the description above, it can be known that farmers have participated in counseling on the use of pesticides.

Based on the results of the study, it can be seen that 6 farmers (20%) said yes, they used something with explanations, 3 people (I0%) said yes, but there were some who did not, I2 people (40%) said they often follow instructions and 9 people (30%) said they did not use them according to instructions. Based on the analysis above, it can be seen that farmers often follow the instructions for pesticide use. Based on the results of the study, it can be seen that 19 farmers (63.34%) who stated that they had experienced injuries while spraying pesticides, 7 people (23.33%) stated always, 3 0rang (10%) stated sometimes and only 1 person (3.33%) stated very rarely. Thus, it can be concluded that farmers have experienced injuries when spraying pesticides on rice plants.

Based on the results of the study, it can be seen that 21 farmers (70%) who claimed to have injuries to the eyes and 9 people (30%) stated that they experienced skin irritation. Based on data analysis, it can be seen that farmers suffered injuries to the eyes and skin when spraying rice plants. Based on the results of the study, it can be seen that 18 farmers (60%) said they took them to the hospital/ puskesmas if they were injured during pesticide spraying, 3 people (10%) said they gave

medicine, people (16.67%) and 4 people (13.33) said they let it go. Based on the description above, it can be seen that farmers bring sick crowds if exposed to cidra when spraying pesticides.

Based on the results of the study, it can be seen that 13 farmers (43.34%) stated spraying pesticides when rice was 1 month old, 7 farmers (23.33%) said when rice was 2 months old, 4 farmers (13.33%) stated when rice was 3 months old and farmers (20%) stated when rice was 4 months old Based on the results of the study, it can be known that 2I farmers (70%) said yes using pesticides on rice plants when it rains, 7 farmers (23.33%) said it was okay as long as it was safe and 2 (6.67%) said it could sometimes be done if urgent. Based on the jaaban given, it can be known that farmers use pesticides on rice plants when it rains.

Based on the results of the study, it can be known that I2 farmers (40%) said knowing that pesticide use can cause acute poisoning, 3 people (I0%) said they knew a lot, 6 people (20%) said they knew little, 9 people (30%) said they did not know. Based on the analysis above, it can be known that farmers know that the use of pesticides can cause acute poisoning. Based on the results of the study, it can be seen that I9 farmers (63.34%) said they used work clothes, 7 people (23.33%) said aprons, 3 people (I0%) used head coverings and only I people (3.33%) said they used masks. Thus, it can be concluded that farmers use personal protective equipment in the form of work clothes that are used specifically to spray pesticides on rice plants.

Based on the results of the study, it can be seen that 2I farmers (70%) who stated bathing after finishing spraying pesticides and 9 people (30%) said they did not. So from the analysis that has been done, it can be seen that farmers take a bath after spraying pesticides on rice plants. Based on the results of the study, it can be seen that 3 farmers (I0%) stated pesticides stored exposed to direct sun, I8 people (60%) stated no, 5 people (I6.67%0 stated sometimes and 4 people (I3.33%) stated often. Analysis that has been carried out shows that the pesticides used are not exposed to direct sun.

Based on the results of the study, it can be seen that 6 farmers (20%) stated giving danger signs to stored pesticides, 3 farmers (33.33%) said no, I2 people (40%) stated sometimes and 9 farmers (30%) stated often. From the above answers it can be concluded that farmers sometimes put danger warning signs on the pesticides used. Based on the results of the study, it can be seen that 2I farmers (70%) stated mixing pesticides at home, 7 people (23.33%) stated below and 2 people (6.67%) stated in the yard of the house. Based on the answers given, it can be seen that farmers mix pesticides on rice plants in the yard.

Based on the results of the study, it can be seen that 6 farmers (20%) said mixing pesticides using special basin/ bucket containers, 3 people (I0%) said no, I2 people (40%) stated sometimes and 9 people (30%) stated often. Based on the analysis above, it can be seen that farmers sometimes use basin/ bucket containers to mix pesticides. Based on the results of the study, it can be seen that 7 farmers (23.33%) who stated cleaning pesticide clothes mixed with family clothes, 19 people (63.34%) said no, 3 people (10%) stated sometimes and only 1 person (3.33%) stated often. Thus it can be concluded that farmers do not mix the clothes used for spraying pesticides with other family clothes.

Based on the results of the study, it can be seen that 18 farmers (60%) who claim to be themselves who clean pesticide equipment (clothes), 3 people (10%) say children who wash them, 5 people (16.67%) who are themselves. Based on the results of the study, it can be seen that 7 farmers (23.33%) who stated cleaning pesticide clothes mixed with family clothes, 19 people (63.34%) said no, 3 people (10%) stated sometimes and only 1 person (3.33%) stated often. Thus it can be concluded that farmers do not mix the clothes used for spraying pesticides with other family clothes.

Based on the results of the study, it is known that 18 farmers (60%) who declared themselves who cleaned the equipment (pesticide clothes, 3 people (10%) stated children who washed them, 5 people (16.67%) who stated wives/husbands and 4 people (13.33) stated almost anyone. Based on data analysis, it can be seen that farmers clean their own pesticide equipment (clothing) after spraying pesticides.

Rice plants are very important cultivated plants for the people of Indonesia. The majority of Indonesians consume rice as a tool to meet food needs (H. R. Situmorang et al., 2022). Based on the results obtained from the entire population, it is known that farmers in Lingom Village, Indrapuri District, Aceh Besar Regency use pesticides for pesticides for rice plants grown. Pesticides are chemicals that are inseparable from their use to control pests and other intruder bodies. Pesticides not only have a positive impact on increasing agricultural products, but also have a negative impact on the surrounding environment (Astuti et al., 2017).

Research on farmer behavior has been widely conducted. One of them is research conducted by Puspitasari (2017) that the factors that shape farmers' behavior in using chemical pesticides are farmers' perceptions of using chemical pesticides, motives for using chemical pesticides, and farmers' attitudes in using chemical pesticides. From Yulisal's research (2018) in Solok City, West Sumatra, it was found that farmers' behavior in the use of chemical pesticides on rice plants is influenced by farmers' knowledge, attitudes and

actions, where all farmers use chemical pesticides to control pests and diseases.

Furthermore, Yulisal (2018) said that in general, farmers' knowledge in the application of artificial chemical pesticides is quite good, but there are still farmers who take action in pesticide applications that are not in accordance with their knowledge and attitudes. Improper pesticide application can be affected by education level, farming experience, and compliance with recommendations and information contained on pesticide labels. The behavior of farmers in the use of pesticides is in accordance with applicable regulations. Farmers use pesticides mixed with water to spray rice plants. Farmers also use personal protective equipment to protect themselves from poisoning and injury that can be caused by pesticides (Prajawahyudo et al., 2022).

The yield obtained by farmers using pesticides is better than without using pesticides. This can be seen from the analysis that has been done by Hidayat (2022). This is because pesticides not only play a role in controlling the bodies of intruders in agriculture, but are also needed in the forestry sector, especially for the preservation of wood and other forest products, in the health and household fields to control the infectors (transmission) of human diseases and animals that interfere with environmental comfort, in the housing sector, especially termite control or other insect disturbances.

The biggest danger when applying pesticides is at the time of mixing, because mixing works with concentrates, therefore it is necessary to note the following: (I) When preparing pesticides to be sprayed, choose a place where air circulation is smooth, (2) Not close the package carefully so that the pesticide does not scatter or splash on body parts. After that pour in a measuring cup, scale or other measuring device. Add more water according to the recommended dosage and concentration, (3) Efforts to mix pesticides should not be in the spraying tank, because it is difficult to ascertain whether pesticides and water have been mixed completely or not, (4) To ensure safety, wear protective clothing and a mask (respiratory protection) and rubber gloves.

Pesticides not only have a positive impact on increasing agricultural products but also have a negative impact on the surrounding environment. The massive use of chemical pesticides has a negative impact on both humans and the environment. The health risks caused by these non-organic pesticides are directly more dangerous than the use of other types of chemicals. Poisoning due to pesticide exposure poses a threat to agricultural workers in various regions of the world (Hook et al., 2018; Sharma et al., 2020).

Based on information from the World Health Organization (WHO), that the cause of death of 12.6 million people per year is caused by this chemical. Studies in developed countries show that the incidence of poisoning in agricultural workers has been experienced at around 18.2 per 100,000 workers. In addition, pesticide poisoning cases in Sri Lanka as many as 180 per 100,000 agricultural workers and about 17.8 per 100,000 agricultural workers occur in Thailand (WHO, 2018). Farmer behavior also shows that farmers clean equipment that has been used after spraying pesticides. The same is the case with the clothes that have been used. The farmer washed it thoroughly and separated it from the rest of the clothes.

Discussion of Interview Results with Farmers

Based on the results of interviews that have been conducted with farmers, researchers discuss the results of interviews according to the results that have been obtained previously. Farmers who grow rice in Lingom Village, Indrapuri District, Aceh Besar Regency have been farmers for many years, even since the farmers were teenagers or before marriage. The harvest obtained from rice plants can be used to meet daily needs and can be sold to increase family income.

Farmers in Lingom Village, Indrapuri District, Aceh Besar Regency also use pesticides in processing rice plants. The pesticides used are obtained from the store and then mixed with water and put in a spraying tube. Pesticides that have been filled in tubes, then sprayed on rice plants. The use of pesticides can help farmers get better yields. This is because without the use of pesticides, growing rice plants can be disturbed by plant pests that damage rice plants and can result in crop failure. The use of pesticides not only has a positive impact on increasing agricultural products or controlling pests, but also has a negative side, namely the occurrence of environmental damage and ecosystem imbalances and causing poisoning for humans which can lead to death due to the emergence of various degenerative and constituent diseases.

Farmers and the use of pesticides in general need to know the trade name or common name of the pesticide so as not to choose the wrong pesticide. Pesticides with the same active ingredient are often sold under different trade names. By knowing the active ingredients of each pesticide, it is not necessary to be too tied to one trade name, but being able to choose it from various existing trade names the use of pesticides will continue to be implemented. Therefore, banning pesticides is not possible, but the recommendation for wise use and use needs to be increased. This can be done if the government carries out activities to increase knowledge of pesticide use at the farmer level, such as in the

Integrated Pest Control Field School (SL-PHT) program. If this is done, it is expected that farmers will use pesticides according to the dose and type of pest attack (Darwis et al., 2021).

Farmers gain knowledge or knowledge about the use of pesticides through agricultural extension workers or other farmers who are more experienced before. So that there are no errors or injuries in spraying. Although injured due to the spraying process, only minor injuries received can be cured by washing limbs, such as eyes and skin. Therefore, farmers rarely suffer severe injuries. Farmers in Lingom Village also use pesticides for the rice plants they consume themselves. This is because, the pesticides used do not threaten health. The rice plant is a wrapped plant, so the pesticides used do not hit the rice consumed by the farmer directly.

The attitude of farmers in using chemical pesticides is that farmers are willing to pay high prices for chemical pesticides that are effective in controlling rice field pests, so that fellow farmers will exchange information about the experience of effective use of chemical pesticides so that crop failure does not occur. Therefore, farmers stated that farmers have no choice if they do not use chemical pesticides to anticipate crop failure. Although 1 respondent farmer controlled pests mechanically because the farmer's rice did not experience many pest attacks so it could still be controlled mechanically. However, the results of research by Tahyudin et al. (2020), stated that the behavior of farmers in reducing the use of chemical pesticides was the majority in the medium category with a percentage of 81% with the strategy of organizing counseling, making pilot plots for the application of IPM (Integrated Pest Control) technology, and holding field meetings to introduce IPM technology. Farmers consider the risk of crop failure more than the adverse effects of chemical pesticides on the environment and one of the factors that affect rice production is pesticides (Suharyanto et al., 2015).

Conclusion

Based on the results of the research that has been done, the results of the study show that the behavior of farmers in the use of pesticides is in accordance with existing regulations. The pesticide used is obtained from the store, further mixed with water put in a spray tube. Pesticides that have been filled in tubes, then sprayed on rice plants. Spraying is carried out using personal protective equipment such as aprons, clothing and masks. Furthermore, farmers clean the equipment and clothes that have been used to make them clean and safe. Similarly, equipment and clothing that have been used are cleaned separately from other equipment and clothing. So as not to contaminate other family clothes during spraying, not to consume food and drinks when spraying so as not to be exposed to toxins contained in pesticides, so as not to experience injury.

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Author Contributions
Conceptualization: Erdi Surya, Lukmanul Hakim, Liya Fitriana Data curation: Muhammad Ridhwan, Funding acquisition: Armi, Methodology: Tutiliana, Visualization: Erdi Surya, Armi, Lukmanul Hakim, Muhammad Ridhwan, Liya Fitriana. Writing–original draft: Armi, Tutiliana, Writing–review & editing: Lukmanul Hakim, Liya Fitriana, Tutiliana.

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