MODEL OF INCREASING PRODUCTIVITY OF CHILI THROUGH GOOD AGRICULTURAL PRACTICES FIELD SCHOOL (CASE IN SUKAWATI VILLAGE, SUKAWATI DISTRICT, GIANYAR REGENCY)

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ABSTRACT

The chili commodity continues to be a topic of gossip among the public, besides being the cause of inflation, it also often becomes scarce when holidays and the rainy season arrive, so it is necessary to create a model for increasing productivity at the farmer level. This research aims to (1) analyze the chili farming subsystem in Sukawati Village, Sukawati District, Gianyar Regency, Bali Province; (2) analyzing chili productivity in Sukawati Village, Sukawati District, Gianyar Regency, Bali Province; (3). compiling a model of the Good Agricultural Practices Chili Field School in Sukawati Village, Sukawati District, Gianyar Regency, Bali Province. This research took place in Sukawati Village, Sukawati District, Gianyar Regency, Bali Province. The choice of research location was chosen purposively.
The population in this study were all farmers who farmed cayenne pepper during the planting period from June to December 2024, consisting of 4 subaks, namely Subak Somi, Juuk, Laud and Abasan. The total population in this study was 186 farmers. The sampling technique is proportional random sampling.
The results of the research show (1) the chili farming subsystem which consists of land preparation, land preparation, seeding techniques, seed care, mulch installation, seed procurement, seed treatment, seed planting, maintenance, harvest handling is still relatively low with a value achievement score 2.54 (50.88%); (2) The productivity of chili farming yields a productivity of 9,399 kg/ha, which is still relatively low; (3) The Good Agricultural Practices chili field school model can be implemented by certified guides, demonstration plotters, exemplary farmers, millennials, and group administrators as well as carrying out good farming activities starting from land preparation, seeding techniques, seed maintenance, mulch installation, seed procurement. , seed treatment, planting seeds, maintenance and good harvest handling. Suggestions that can be given are (1) in farming, things that need to be improved are: seeding techniques, seed maintenance, mulch installation, seed procurement, seed treatment and maintenance in the field.

Keywords: *Improvement model, chili productivity*

1. INTRODUCTION

Food commodities have always been a mainstay in a nation's economy. So far, food supply has been synonymous with community welfare, especially the main actors such as farmers. In fact, if we look closely at the microeconomic aspect, farmer welfare can be measured through the Farmer Exchange Rate (NTP). This can be achieved by increasing farmer income. Chili is a horticultural (non-food) commodity which always causes inflation. This is because the need for cayenne pepper is always needed by the wider community, starting from households, industry and medium and small businesses. The Bali province of cayenne pepper is most widely used on religious holidays such as Galungan and Kuningan, apart from that, tourism support facilities also require a significant amount of chili for the consumption needs of foreign tourists, as well as to fulfill culinary tourism. The problems that are often encountered at the farmer level are that farming is not optimal, starting from seed

preparation, soil processing, bund preparation, maintenance, harvesting and post-harvest which has implications for chili production or productivity, income and farmer income. For this problem, it is necessary to find a concrete solution to overcome it through the Good Agricultural Practices (SL-GAP) Field School model.

Research purposes

1. Analyzing the Chili Farming Subsystem in Sukawati Village, Sukawati District, Gianyar Regency, Bali Province
2. Analyzing Chili Productivity in Sukawati Village, Sukawati District, Gianyar Regency, Bali Province.

3. Developing a Good Agricultural Practices Chili Field School Model in Sukawati Village, Sukawati District, Gianyar Regency, Bali Province.

2. RESEARCH METODOLOGY

This research took place in Sukawati Village, Sukawati District, Gianyar Regency, Bali Province. The location for this research was chosen purposively with the consideration that: it has the potential to develop cayenne pepper, the chili seeds planted are local seeds, and cayenne pepper is one of the horticultural flagships of the Gianyar Regency area. This research was carried out on 4 subaks that carry out cayenne pepper farming during the planting period from June to December 2024, namely Subak Somi, Juuk, Laud and Abasan.

The type of data in this research uses qualitative and quantitative data. The data sources used are primary data and secondary data.

The population in this study were all farmers who farmed cayenne pepper during the planting period from June to December 2024, consisting of 4 subaks, namely Subak Somi, Juuk, Laud and Abasan. The total population in this study was 186 farmers. The sampling technique is proportional random sampling. Determination of samples taken based on the Slovin formula with a percentage of 5%, then divided proportionally to each existing subak. So the total sample was 127 respondents.

The research data was then analyzed qualitatively and quantitatively. Qualitative data from the questionnaire results that were obtained from the research samples were then transformed into numbers in the form of scores and analyzed quantitatively. Then the data was analyzed using descriptive statistical methods using an ordinal scale ranging from 1 to 5 (very low, low, medium, high and very high) using the interval class formula, namely dividing the difference between the highest value and the lowest.

3. LITERATUR REVIEW

A model is a representation of a phenomenon, whether real or abstract, by highlighting the most important elements of the phenomenon or is a representation of a phenomenon by highlighting elements that are considered important by the maker (Mulyana, 2007). In general, models are built with the aim of forecasting and evaluating policies, then developing policy planning strategies and formulating them (Tasrif, 2004, in Ustriyana, 2016).

Field schools are a form of school where the entire teaching and learning process is carried out in the field. Field schools seem to make participating farmers as students and field guides as teachers; However, in field schools there is no distinction between teachers and students because the family aspect is prioritized, so that "teachers and students" give each other knowledge gained from experience (Kementan, 2008).

4. RESULTS AND DISCUSSION

In The cayenne pepper farming subsystem consists of 9 variables starting from land preparation, seeding techniques, seed maintenance, mulch installation, seed procurement, seed treatment in the nursery, planting, maintenance and handling of the chili harvest. Starting with land preparation which includes clearing the land, tilling the land, making beds and trenches, liming the soil, basic organic fertilization, which is included in the medium category with an achievement score of 2.74 or 54.80%. The technical breeding carried out is included in the low category with an achievement score of 2.58 (51.65%). The nursery techniques carried out did not meet the principles, such as not having made beds that lead north-south with a bed height of 25 cm, not providing basic organic fertilization, and not making a roof for the nursery. Maintenance of seeds that are sown is included in the low category with a value of 2.49 (49.92%). Lack of technical aspects Not enough has been done to maintain the chili seedlings, watering them continuously in the morning and evening, they haven't regulated the shade of the seedlings using an open and close system, and maintenance hasn't been done for one month. Most people do not install silver black plastic mulch when cultivating chilies with the assumption of reducing higher costs, achieving a score of 1.78 (35.74%) in the very low category. Procurement of chili seeds is relatively low with a value of 2.47 (49.44%). Procurement of seeds still uses previously derived seeds, buying at the nearest market, and buying seeds from local farmers. The treatment of seeds before planting was still relatively low with a score of 2.52 (50.55%) this was due to not having carried out selection, not soaking them in warm water for 4 hours, and not planting them in polybags first before planting them in the field. Planting of Kelahan chili seeds has begun to apply good cultivation techniques in the medium category with an achievement score of 2.81 (56.37%). When planting chili seeds, farmers have begun to determine planting schedules, plant spacing, as well as the depth in planting chilies. The maintenance variable is still relatively low with a value of 2.51 (50.39%). Indicators of balanced fertilization are not given properly in terms of the type, dose and time of fertilization, plant stakes are not made so that many chili plants fall, and chili pruning is not carried out by local farmers. Meanwhile, harvest management, which includes harvest age based on the physiological characteristics and age of the chili plant, harvest time, how to harvest the chilies, and the location of the chilies after harvest, has been carried out well with a score of 2.95 (59.05%) in the medium category. The average chili farming yield is included in the low category with an achievement score of 2.54 (50.88%). The results of the analysis of chili farming results can be seen in Table 1.

Table 1. Achievements of Chili Farming Results

No	Chili farming	Amount score	Score achievement		Category
			(Number)	(%)	
1	Land preparation	348	2,74	54,80	Currently
2	Nursery Technical	328	2,58	51,65	Low
3	Seedling maintenance	317	2,49	49,92	Low
4	Installing mulch	227	1,78	35,74	Very Low
5	Procurement of seeds	314	2,47	49,44	Low
6	Seed treatment	321	2,52	50,55	Low
7	Planting seeds	358	2,81	56,37	Currently
8	Maintenance	320	2,51	50,39	Low
9	Harvest handling	375	2,95	59,05	Currently
Average		323,11	2,54	50,88	Low

The average productivity achieved was 9,399 kg/ha, still in the low category. The very low category was achieved by 26 farmers (20.47%) with a productivity interval of 6,800 - 8,120 kg/ha. The productivity interval > 8,120 – 9,440 was obtained by 48 farmers (37.79%) in the low category. The 19 sample farmers obtained productivity in the interval >9,440 – 10,760 in the medium category. Meanwhile, the high and very high categories were respectively obtained by 17 (13.38%) and 15 (11.81%)

sample farmers with productivity intervals of >10,760 – 12,080 and >12,080 – 13,400. Productivity Achievements for Cayenne Pepper can be seen in Table 2.

Table 2. Chili Productivity Results Achievements

No	Protivity Interval (kg)/Ha	Number of Respondents	Percentage of Respondents (%)	Category
1	6.800 - 8.120	26	20,47	Very low
2	> 8.120 – 9.440	48	37,79	Low
3	>9.440 – 10.760	19	16,53	Currently
4	>10.760 – 12.080	17	13,38	Tall
5	>12.080 – 13.400	15	11,81	Very high
Average	9.399	127		Low

The background to the development of the model for cayenne pepper farmers is the existence of a farming subsystem and the productivity of chili peppers which is still relatively low. Departing from these problems, a Good Agricultural Practices Field School should be created because it can combine theory and practice in the field by paying attention to the following criteria: such as aspects of activity guides who should be experienced and expert in building Good Agricultural Practices Field Schools as proven by certified guides, conducting demonstration plots as a school event and technology studies as its support (Adnyana, et.al. 2020; Palis, 2006). With this demonstration plot, participants will understand and master it better than by seeing and listening to it. Participants who will take part in this SL-GAP activity should from exemplary farmers, millennials and farmer group administrators with the aim of making it easier to receive communication messages, being able to implement transfer of distribution and innovation in chili farming technology. SL-GAP needs to be given more in-depth material and practices based on research studies starting from better land preparation, seeding techniques, maintenance, installation of silver black plastic mulch, seed procurement, seed treatment, seed

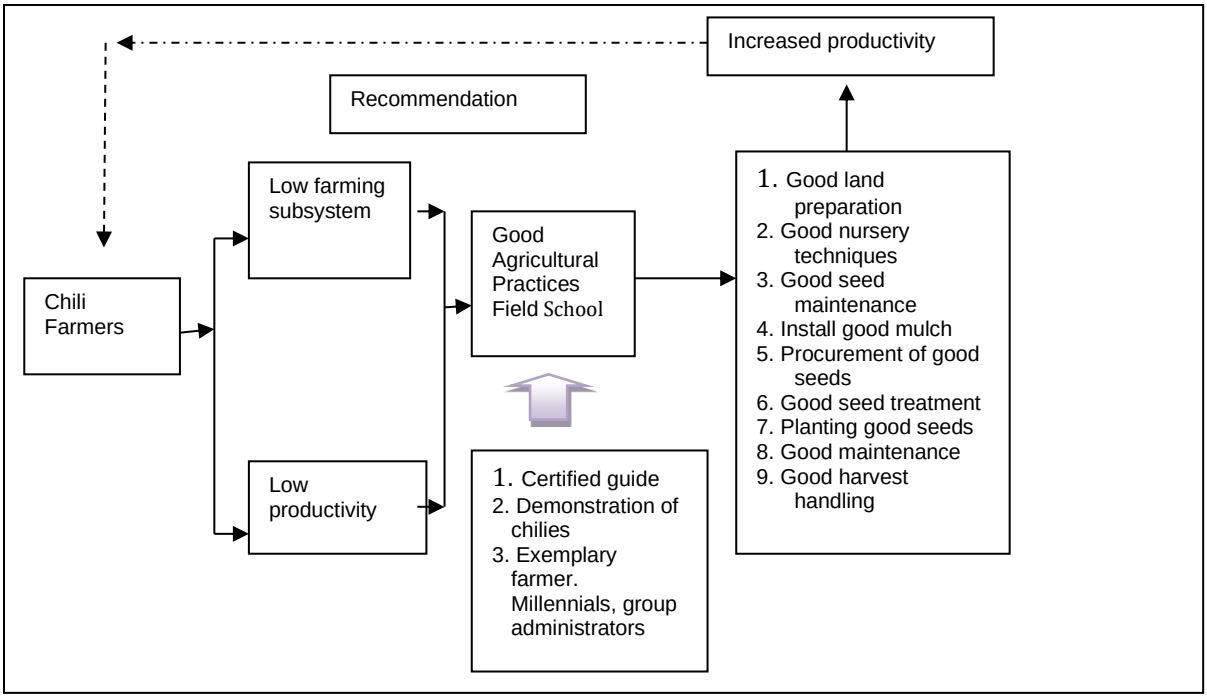

Figure 1
Chili Good Agricultural Practices Field School Model

5. CONCLUSION

The conclusions that can be given are as follows.
(1) the cayenne pepper farming subsystem which consists of land preparation, land preparation, nursery techniques, seed care, mulch installation, seed procurement, seed treatment, seed planting, maintenance, harvest handling is still relatively low with the average score achieved. 2.54 (50.88%);
(2) The productivity of cayenne pepper farming is 9,399 kg/ha, which is still relatively low;
(3) The implementation of the Good Agricultural Practices Chili Pepper field school model can be carried out by certified guides, demonstration plotters, exemplary farmers, millennials, and group administrators as well as carrying out good farming activities starting from land preparation, seeding techniques, seed care, mulch installation, procurement. seeds, seed treatment, planting seeds, maintaining and handling good harvests.

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