

ISSN 2277-8616

International Journal of Scientific & Technology Research

e-publication, Volume 7 Issue 5
May 2018 Edition
ISSN 2277-8616



IJSTR
www.ijstr.org

Analysis Of Quality Control Of Rice Seed Products With The Introduction Of SQC Model (Statistical Quality Control) At UD. Mayang Srie - Mayang Jember District)

Yuangga Rahmad Ramadan, Eka Bambang, Ema Desia, Isti Fadah

Abstract: This study aims To determine whether there are defective products in the UD. Mayang Srie. To find out whether the amount of damage to the product is still within the tolerance limit. To describe what factors cause damage to products manufactured by UD. Mayang Srie Jember. This research is based on quantitative descriptive by taking the population of rice seed production during October, November, December 2017 and the research sample is production every week in October to December 2017. The analysis used is (Statistical Quality Control) SQC. From result of analysis Number of production of rice seed of UD. Mayang Srie in October, November, December in 2017 is as much as 81.968 kg, with the number of damaged products 3,699.78 kg. Based on the results of the analysis using P-Chart control charts in controlling the quality of rice seed products it is known that the damaged product is still out of control which means it can be risky for the related company. The result of the analysis using causal diagram is known cause factors of damage in rice seed production process is human, work environment, method and machine.

Keywords: Quality Control, Rice Seeds, Damaged Products, SQC

1 INTRODUCTION

Farmers in Indonesia generally and farmers in East Java in particular need superior rice seeds in order to meet the food needs of the population. Superior rice seeds can only be produced by seed breeder companies that continuously maintain the quality of seed products produced. If this is not done then the resulting product can not be guaranteed quality. UD. Mayang Srie during its operation since its inception the company has been trying to improve the quality by reducing the level of seed damage. Guarantee of seed quality at UD. Mayang Srie must be guaranteed and also ensured in order to gain recognition from the public and also to obtain certification as a high quality seed by the Agriculture Service. Companies that do not pay attention to the quality control of the products to be marketed, in the short term the company does not need to incur additional costs related to quality control, but in the long term the company is difficult to market the product due to competing similar companies whose product quality is better. So the role of product quality control is very important and useful for the company. Objectives to be achieved in this study are: To determine whether there are products damaged in UD. Mayang Srie by implementing quality control system; To find out whether the amount of product damage occurred in UD. Mayang Srie Jember remains at the limit of tolerance; To describe what factors cause damage to products manufactured by UD. Mayang Srie Jember.

2 Literature Review

Murdifin Haming and mahfud Nurnajamuddin (2014: 23) Operational Management is defined as activities related to planning, coordinating, moving and controlling the activities of business organizations or services related to input processing into outputs with greater value added. According to Render and Heizer (2006: 253), quality is the "overall feature and characteristics of a product or service capable of satisfying a visible or disguised need". Quality control management Rudy Prihantoro (2012: 46) is an activity of the overall management function that sets the company's quality policy, objectives and responsibilities, and executes it in a way such as quality planning, quality control, quality assurance, and quality improvement within the quality system. Vincent Gasperz (2005: 480) quality control is "the technique and operational activities used for". According to Assauri's opinion (2008: 210) the purpose of quality control is as follows: (1) In order that the goods can reach the standard production quality that has been set. (2). Ensure that the cost of inspection can be as small as possible. (3). Ensure that only the design of products and processes using a certain production quality can be as small as possible. (4). Ensure that production costs can be as low as possible.

3. Research Methods

This research is based on quantitative descriptive by taking the population of rice seed production during October, November, December 2017 and the research sample is production every week in October to December 2017. The analysis used is (Statistical Quality Control) SQC.

From table 1 above shows that the amount of UD rice seed production. Mayang Srie in October, November, December in 2017 is as much as 81.968 kg, with the number of damaged products 3,699.78 kg. After calculating the percentage of damage, average production, average damage, maximum damage, minimum damage, central line (CL), upper control limit (UCL), lower control limit (LCL)

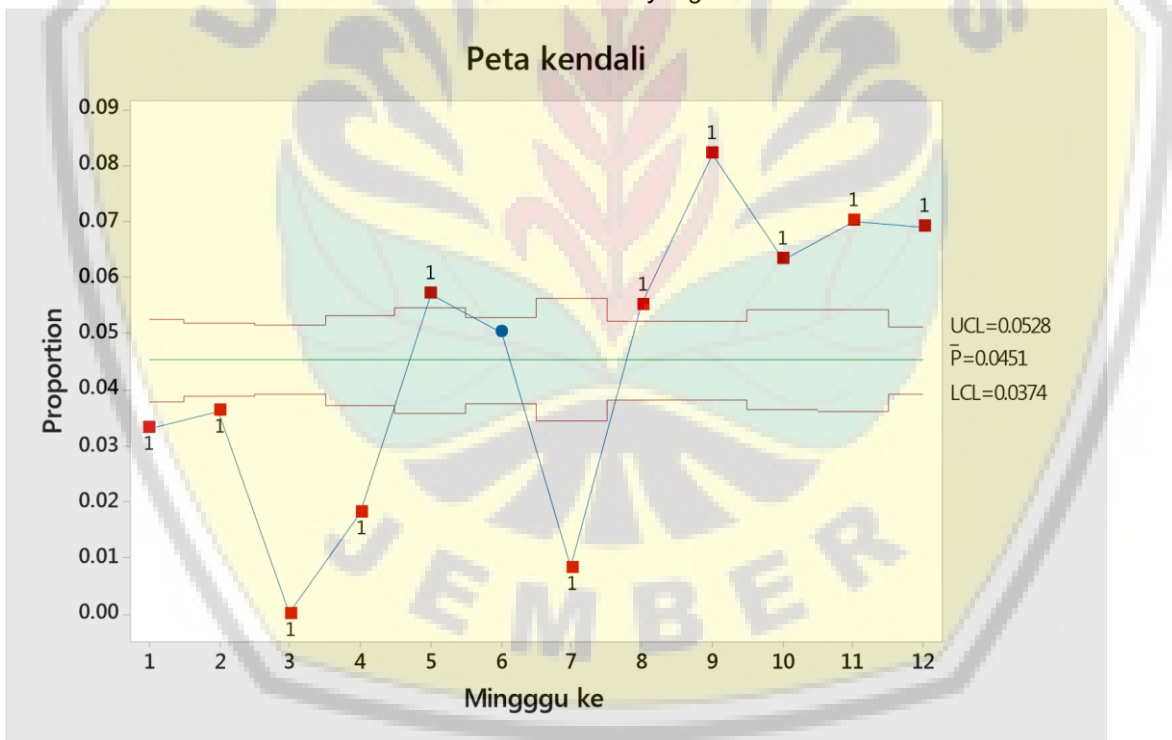
-
- Yuangga Rahmad Ramadan, Eka Bambang, Ema Desia, Isti Fadah
 - University of Jember, University of Jember University of Jember University of Jember Email istifadah1966@gmail.com

4. Result and Discussion

Table 1 Check Sheet Damage Product October, November, Desember 2017

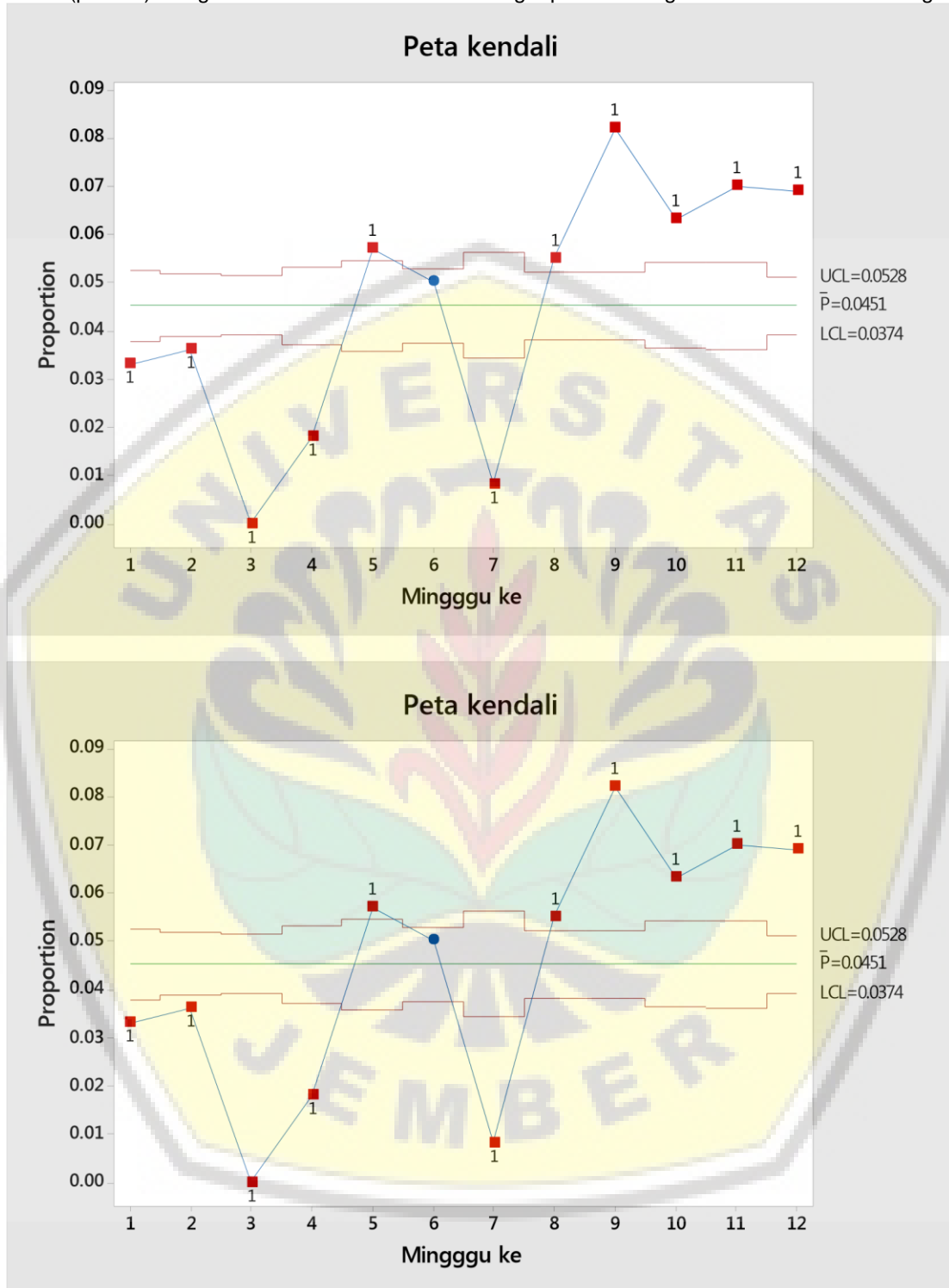
Month	Week ke	Amount of Production (kg)	Water Content >12,5%	Kinds of Damage Mixed Varieties >1%	Power Grows <80%	Amount of Damage Product (kg)
Oktober	1	7.050	91,65	63,45	77,55	232,65
	2	9.023	153,40	90,2	81,20	324,8
	3	10.173	0	0	0	0
	4	5.900	29,5	41,3	35,4	106,2
November	1	4.323	108,08	56,20	82,14	246,42
	2	6.534	117,61	71,87	137,21	326,69
	3	3.212	0	25,70	0	25,70
	4	7.646	145,27	122,34	152,9	420,51
Desember	1	7.882	260,11	86,70	299,52	646,33
	2	4.962	148,87	24,81	138,94	312,62
	3	4.721	169,96	66,09	94,4	330,45
	4	10.542	263,56	147,59	316,26	727,41
Total		81.968	1.488,01	796,25	1.415,52	3.699,78

Source: UD. Mayang Srie



Map of p control (p-chart) using minitab 18. The result of making a p-chart using minitab 18 is shown in Figure 1 below:

Map of p control (p-chart) using minitab 18. The result of making a p-chart using minitab 18 is shown in Figure 1 below:



Discussion

UD. Mayang Srie is a provider of rice seeds located in Mayang Village, Mayang District, which is precisely in Jalan Raya Raung No. 93. As a company that provides superior seeds of course require quality control related to the initial

process of the product until it becomes output of final output ready to be marketed, this is done in order to compete with similar businesses. Quality control is done in meeting the quality standards of the product, among others, by paying attention to various things one of them is by maintaining the stability of water content in the prospective rice seed that should not exceed 12.5%, varieties that should not be mixed with other varieties with a tolerance limit of 1% of the yielded

varieties, seedling power should have good quality grow with minimum seed growth standard of seed candidate of 80%. Statistical Analysis Control analysis can provide a view on

related companies ie UD. Mayang Srie to further improve the quality control of rice seed quality that is

produced in order to consistently and gradually can produce a quality product by continuously pressing the level of damage that may occur in the process of making rice seeds so as to maximize profit / profit. Based on the results of data analysis and discussion obtained the following conclusions:

- a. Total production of UD paddy seeds. Mayang Srie in October, November, December in 2017 is as much as 81.968 kg, with the number of damaged products 3,699.78 kg. In result of analysis of data of Check sheet and Histogram known level of dominant damage of UD rice seed product. Mayang Srie from the highest to the lowest is the rice seed has a water content that exceeds 12.5% of 1,488.01 kg, the growing potential seeds <80% of 1415.52 kg, and varieties of rice seed candidates mixed with varieties others exceeding the 1% tolerance limit of 796.25 kg. Total product damage is 3,699.78 kg of total production during October, November, December of 2017 of 81.968 kg.
- b. Based on the result of analysis by using P-Chart control statistic tool in controlling the quality of rice seed product, it is known that the damaged product is still out of control, although the damage is still in low percentage but if left unchecked will cause loss by UD. Mayang Srie. Where 1 point is still within the control limits and other origin points still fluctuate beyond the upper control limit (UCL) of 0.0528 and the lower control limit (LCL) is 0.0374 which means it can be risky for the related company.
- c. The result of the analysis using causal diagram is known cause factors of damage in rice seed production process is human (Man), work environment (Environment), Method (method), machine

References

- [1]. Gaspersz, Vincent, 2005, "Total Quality Management (TQM)" : PT. Gramedia Pustaka Utama, Jakarta
- [2]. Heizer, Jay, Barry Render. 2006. Operations Management (Manajemen Operasi). Jakarta : Salemba Empat.
- [3]. Murdifin Haming, mahfud Nurnajamuddin. 2014. Manajemen produksi modern. Jakarta : PT Bumi Aksara.
- [4]. Rudy Prihantoro. 2012. Konsep Pengendalian Mutu. Bandung L: PT Remaja Rosdakarya Offset.