Physical Characterization and Quality Control of Okra Grade Small Products Using the SQC Method at PT. Mitratani Dua Tujuh Jember
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ABSTRACT

Okra (Abelmoschus esculentus L.Moench) is one type of functional vegetable that has many uses because of its many parts, including fresh leaves, buds, flowers, pods, stems to seeds that can be utilized. The objectives of this study are (1) to determine the effect of the physical characteristics of okra at various levels of quality class/grade criteria produced by PT Mitratani Dua Tujuh, (2) to identify the types of defects that often occur in okra products at PT Mitratani Dua Tujuh, (3) to determine the factors that cause defects or damage to okra products produced by PT Mitratani Dua Tujuh, (4) to provide suggestions for improvements to control the level of defects or damage to okra products at PT Mitratani Dua Tujuh. The research method used regarding the physical characteristics of okra (size, color, texture) uses the SPSS ANOVA data analysis method at the 5% significance level, if significantly different, followed by the Duncan Multiple Range Test (DMRT) and research on quality control using quantitative descriptive methods. The grade level has a significant effect on the measurement of length and diameter values and texture. As for color, it does not show a real effect. The results of the physical analysis of the grade level showed measurements of length and diameter with a range of 5.66-10.97cm for length and 1.13-1.57 cm for diameter, texture (hardness) ranging from 54.80-86.93 g/mm, degree of brightness 27.89-32.06%, degree of redness -13.35-(-16.35)%, and degree of yellowness 23.89-26.73%. For the results of testing and data analysis carried out, it shows that based on the results of the P control map, it can be seen that the quality of okra products is outside the control limits that should be. This is an indication that the process is in an uncontrolled state or still experiencing deviations.

Key Words : *Grading*, Okra, *Quality*, *Statistical Quality Control*