

Title Physical properties of green soybean: Criteria for sorting
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Abstract

The objective of this research was to explore the possibility in developing a criteria for green soybean (*Glycine max* variety AGS 292) sorter. Green soybean could be classified into two main categories by its usage; the perfect pods (3-seed pod and 2-big seed pod) contained 47%, the rest was imperfect pods including 2-small seed pod, 1-seed pod, atrophied pod, twisted pod, and defected pod. Some important physical characteristics were investigated including width, length, thickness, pod weight, pod projected area, apparent density, bulk density, and seed firmness. The results illustrated that the perfect pods had length, pod weight, projected area and seed firmness significantly larger than the imperfect pods. All pod groups had apparent density equal or lower than water. Among all pod groups, the 2-big seed pods had the highest bulk density, thickest pod, and the firmest seed. The application of these physical properties for green soybean sorting was also proposed.