

Subject (Thai): Development of Machine Manufacturing for Dried Artificial Soil of Organic Farming

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Abstract

This research is in the title of studying and development of the manufactured machine for dried artificial soil for organic farming has the objectives as this following: 1) To study the procedures for utilizing the wet waste of organic farming 2) To develop the manufactured machine of dried artificial soil for organic farming 3) To take satisfaction assessment with the manufactured machine for dried artificial soil of organic farming 4) To take effectiveness assessment for artificial soil from the new manufacturing procedure and 5) To take effectiveness assessment with manufactured machine for dried artificial soil of organic farming

In addition, the group sampling used in this research is the experts and the professionals in product design and machine and the farmer to cultivate plants with organic farming. Besides, it has applied the operational testing to test with the farmers for planting from organic farming. What's more, the tool used in this research are as this following: 1. Interviews 2. Questionnaires for taking assessment of the manufactured machine development for dried artificial soil of organic farming 3. Satisfaction Assessments with manufactured machine for dried artificial soil of organic farming 4. Effectiveness Assessment Forms with Dried Artificial Soil from New Manufactured Procedure 5. Effectiveness Assessment Forms with Manufactured Machine for Dried Artificial Soil of Organic Farming and 6. Observation Forms

In addition, it has brought the related principle with the convenience of applying consisting of material weight, ability to manufacture, ability to fix and complexity of using equipment. Similarly, the principle to create TRIZ theory is called as equip potentiality with the concept to develop the new machine. On the other

hand, according to the result it was found that there was the effectiveness of manufactured machine for dried artificial soil of organic farming.

Significantly, according to the testing with farmers for planting in organic farming at the farms there is 10 group sampling who gained the effectiveness value of manufactured machine for dried and pelleted artificial soil. Thus, it has applied the original and the new form equally to 84.00 : 94.57 according to the determined effectiveness standard that is the effectiveness value of manufactured machine for dried artificial soil to be in higher new level than the original ones.

According to the opinion conclusion of farmer groups in the surveyed target area with mini grinders and dried pallets, it was found that it had the excellent level of satisfaction or ($X = 4.43$, $S.D. = 0.54$). Then, the farmers had the opinion that the new developed manufactured machine of the artificial soil to compress in suitable and effective way without breaking. As the result, it can bring into the dried procedure with suitability to apply variously with leftovers depending on the requirements of the farmers in other farming areas as well.