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M.Sc. (APPROPRIATE TECHNOLOGY FOR RESOURCE)

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JIRAYUTT KICHRATANASAK : THE FEASIBILITY STUDY OF A MACHINE  
DRYER AS MULTIPURPOSE USE IN AGRICULTURAL HOUSEHOLDS. THESIS ADVISORS :  
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The purpose of this thesis was to assess the feasibility of a machine dryer for multipurpose use in agricultural households and to study and compare the ability and cost of an invented fumigator and a common fumigator. The invented machine dried agricultural products with solar or electrical energy. The user could select either method to use.

The samples used were twenty kilograms of numwa bananas and twenty kilograms of large chilies. These samples were dried five times in testing. The study showed that :

1. Time for drying in the invented fumigator was less than for the common fumigator.
2. The invented fumigator had a constant temperature of 50 °C at 0.05 level.
3. Energy usage efficiency for the invented fumigator was 31.46 %
4. The cost to build the invented machine was relatively inexpensive, 11,200 Baht.