ADAP
Agricultural Development in the American Pacific

Swine Waste Management for Pacific Islands
ADAP 2003-8, June 2003
ISBN 1-931435-35-9

Food Discards for Swine

Properly cooked food discards can be used for swine feed. This is a good way to recycle home or commercial food discards, reduce feed costs, and provide many of the requirements for a balanced swine diet.

Benefits of cooking food discards

Stemming the spread of disease is the primary reason for cooking discards. Proper cooking destroys disease organisms that could spread through the food to the herd. It makes sense in other ways too, including the following benefits:

- Many unpalatable items, such as potatoes, raw vegetables and citrus rinds become edible when cooked.
- Cooking discards improves animal intake and feed efficiency.
- Cooking evenly spreads the nutritional value throughout the feed, thereby providing nutritious feed to small pigs that are usually pushed away.

On-farm cooking of food discards

Food discard considerations

Using food discards as feed for your herd is time-consuming. Food must be thoroughly boiled for at least 30 minutes to destroy all disease organisms. Other considerations are:

- Feed discards only to pigs over 36 kg (80 lb). Food discards contain more water than younger pigs' stomachs can handle.
- Pick up discards from their source every day or every other day to keep spoilage to a minimum.
- Maintain clean containers and proper covers to avoid contamination of cooked discards.
- Cook and use discards promptly. Food discards cannot be stored in the same manner as dry feed; they must be used immediately or thrown away.

Direct-fire equipment

The direct-cooking method allows discard containers to be exposed directly to the cooking fire. Vats used to cook the discards should not have previously held chemicals or other dangerous materials that could contaminate the feed and harm the pigs. The direct-fire equipment is easy to build, and a brief description is given below. The discards are placed in the vat and put over the direct flame to begin the cooking process.

After reaching the boiling point, the food discards must be boiled for at least 30 minutes to make sure all disease organisms are destroyed.

Plans for building a direct-fire cooker

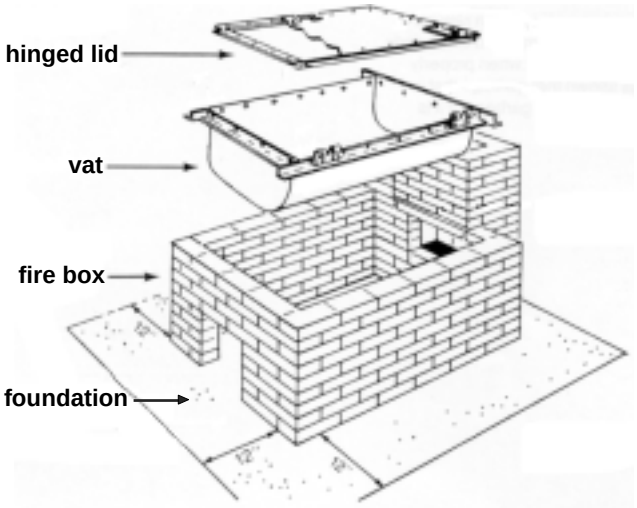
There are four important parts to designing a useful direct-fire cooking operation. You will need

a strong foundation, a fire box, the vat for cooking, and a lid to control flies and to protect anyone from getting burned.

The foundation should be a 15-cm (6 inch) slab of poured concrete, reinforced with 10 x 10 cm (4 x 4 inch), 6/6 wire mesh under the fire box. Four inches (10 cm) is ample thickness for the slab under your work standing area.

The fire box should be made out of fire-resistant material such as fire brick or common brick lined with fire brick on the edge. It is important to maintain at least 3.8 cm (1½ inch) clearance between the vat and wall.

The vat can be a drum (200 liter/55-gallon), cut in half lengthwise. The drum should sit inside the fire box and be fastened to iron bolts. Use an 18 gauge galvanized steel sheet bolted at an angle or welded to form the rim.

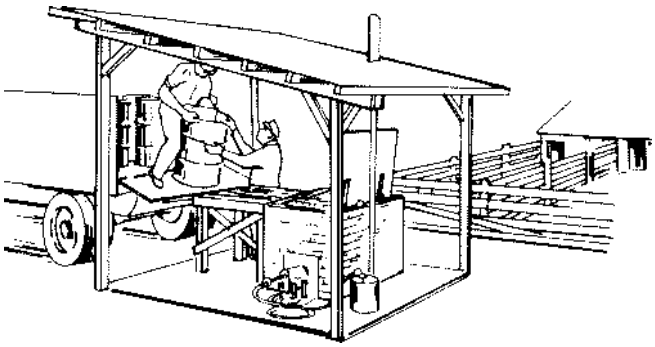


Parts for a direct-fire cooking operation*

* United States Department of Agriculture. *Heat-Treating Food Waste: Equipment and Methods*. Program Aide No. 1324. 1983.

Maintenance of direct-fire equipment

Ashes should be removed after every use so that the cooker remains clean and in good working condition. A simple shed built to house the cooker will save both time and fuel. Proper coverage keeps fuel dry from the rain and reduces heat loss by the wind as you are trying to light a fire.



Good design makes handling easier*

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** Provided content research and technical editing. Thanks to Kristie Tsuda for her work in the assembly and layout of earlier versions of this work and to Dale Evans for editing. Thanks also to Shirley Nakamura and James Lum of Natural Resources Conservation Service-Hawaii for their helpful advice.

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Funded by the United States Department of Agriculture Cooperative State Research, Education and Extension Service Grant 99-38826-7854
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