

Alternative Swine Waste Management: Implications for Public Health

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PROBLEM?

"The impact of animal waste on the environment is a growing problem, not only in atoll countries but also in other Pacific Island countries."

- The 14th meeting of the Permanent Heads of Agriculture and Livestock Services In the Pacific (PHALPS) in May 2001

Conventional Sprayout systems require copius amounts of Water and pose a threat to underground and surface water resources



Current Waste Management System in the Pacific



Current Waste Management System in the Pacific



Directly contaminating the streams (American Samoa)

Current Waste Management System in the Pacific



Uncontrolled flow of manure around the perimeter of the piggery (Tinian)

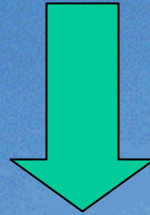


Current Waste Management System in the Pacific

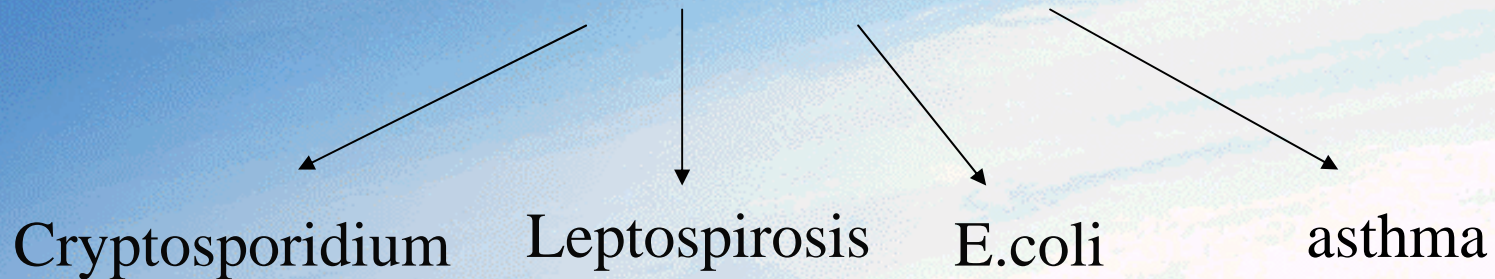


Waste effluents directly leading to a cesspool

Animal Waste contaminants



poses public health risk



Impact on Public Health

REASONS?

Lack of effective animal waste regulations to follow within the area for small scale operation

Existing waste management system are applicable to commercial operation and not to small-scale subsistence farmers

Lack or limited education on the benefits and effects of manure to the environment, animal and the community



Marianas Dry Litter Waste Management System









The Dry Litter system requires no water.
Pigs are comfortable in their bedding

Pigs can't wait for their chips.
A soft bedding improves the pigs environment which
Helps to keep them happy and healthy



Pig activity turns and aerates the chips promoting the Decomposition of waste materials while greatly reducing odor as well

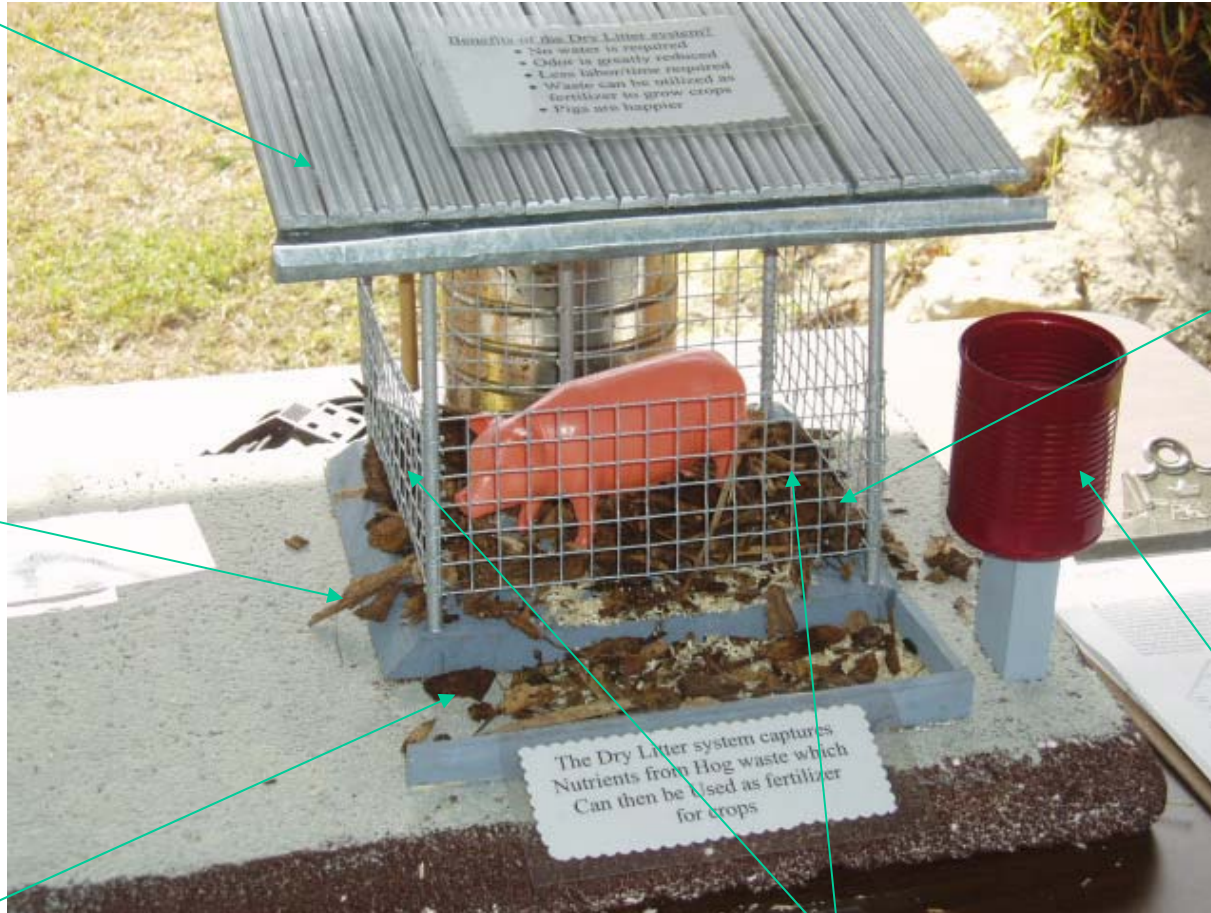


Key Features of the Marianas Dry Litter System

Roof
overhang

Slope
Flooring

Waste
Alley



Nipple
Waterer

Rain
Catchment

Hog panels



Chipped organic materials are now readily available
On Saipan at the Transfer Station.





Composted waste materials along with the chipped wood and coconut
Make for a wonderful soil amendment-improving soil quality
And fertility



Less moisture, therefore less odor, less pests (flies) – healthier pigs, better productivity





Benefits to the Community

Reduced agricultural demand for water

Reduced exposure of pathogens from animal manure to ground and surface water resources

Reduced odor, pest and fly problems

Thank You very Much!!!

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Agricultural Development in the American Pacific

Marianas Resource Conservation and Development Council