

# **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





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**Directly contaminating the streams (American Samoa)**



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







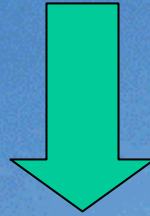
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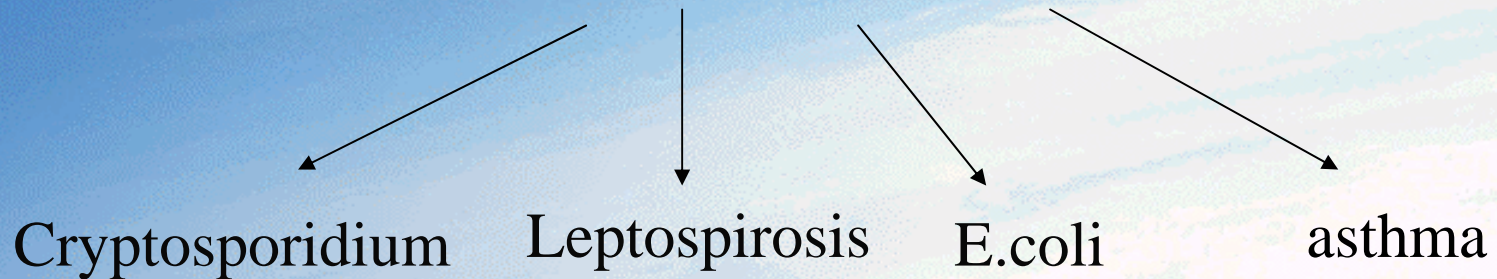
Waste effluents directly leading to a cesspool



# 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



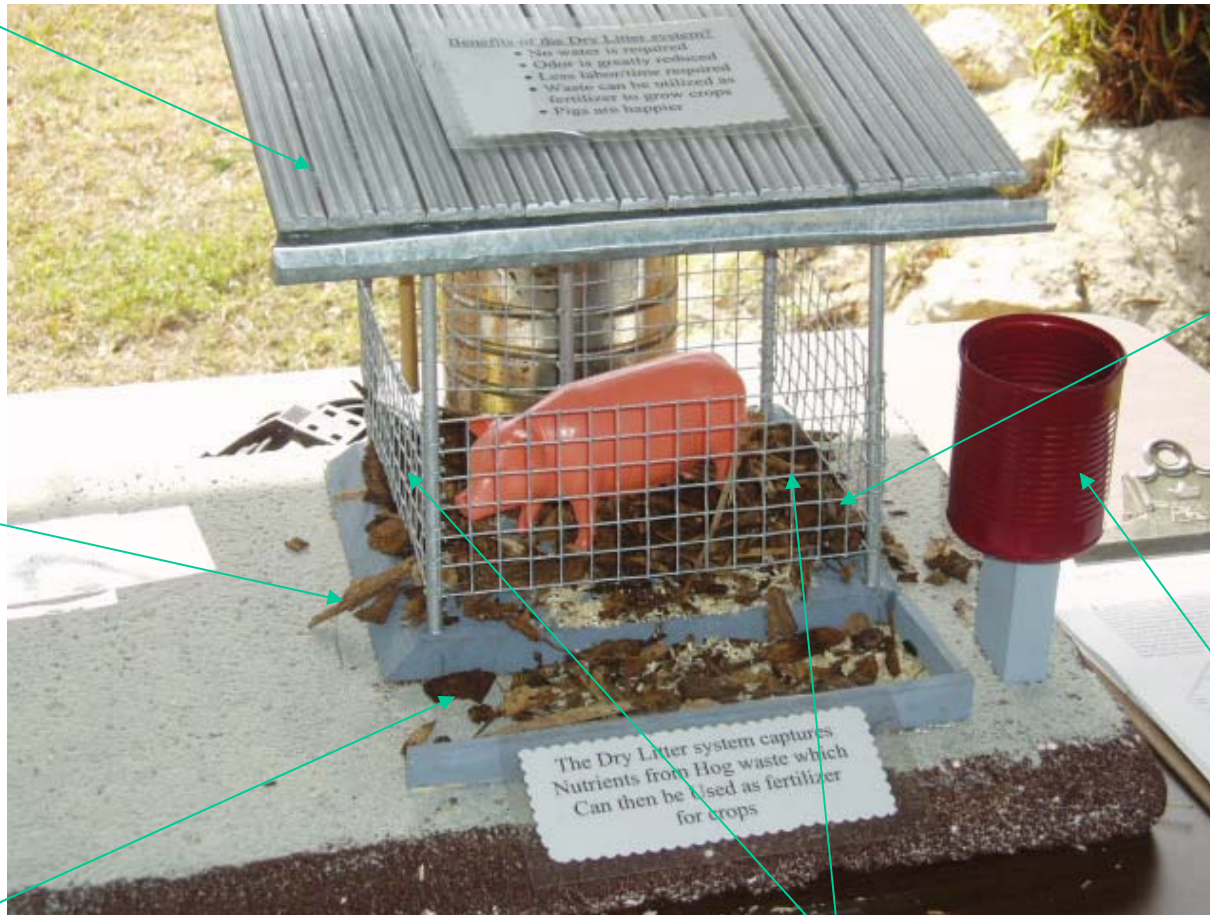


# Key Features of the Marianas Dry Litter System

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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Marianas Resource Conservation and Development Council