

# Best Practice Effluent Management in Tasmania

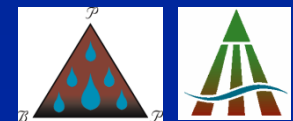
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&

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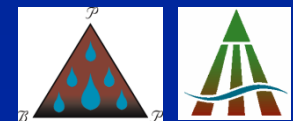
Badcock Irrigation Services



# DairyTas Project

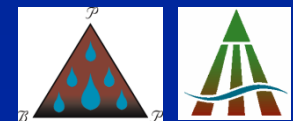
Aim: To improve the management of dairy effluent on Tasmanian dairy farms, by:

- Technical training for advisers
  - Consultants to provide effluent management plans
  - Subsidy for dairy farmers to upgrade.
- 
- Project started in 2004.
  - 180 plans under the project
  - 15 plans for farms outside the project.
  - Advice provided to 45% of Tasmanian dairy farms



# Best Practice Effluent Management

Aims to avoid potential pollution impacts by ensuring that all effluent is retained on the property, storage and application facilities avoid pollution on the farm, and the nutrient content of the effluent is utilised to boost pasture production.



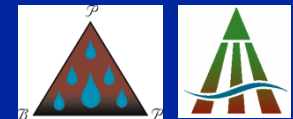
# Meeting Best Practice

## DIRECT APPLICATION:

- Direct from the shed to the paddock; minimal storage.

## DEFERRED APPLICATION:

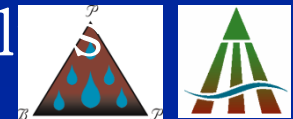
- Storage over the winter months for application during summer.



# DIRECT APPLICATION

Is more appropriate in these circumstances:

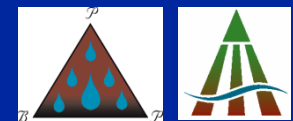
- Where soils are well drained in winter; low risks of runoff.
- Flat or gently undulating sites; less risk of runoff.
- In low rainfall areas.
- Where construction of a storage pond is difficult (high groundwater, no clay, small farms without a convenient site).
- A definite advantage is that handling solid and slurry is avoided.



# DIRECT APPLICATION

## Facilities:

- Sand & gravel trap.
- Pumping sump and effluent pump.
- Above-ground-poly pipes or buried PVC mains.
- Travelling effluent irrigator.
- Anticipate \$15,000 to \$25,000.



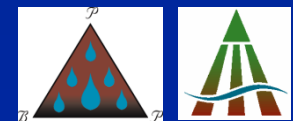
**Bruce Grey, Redpa  
Trafficable sand & gravel trap**





**Ian Grey,  
Redpa**

**Shovel cleared  
Sand & Gravel  
channel**





**Bruce Grey, Redpa  
Stirrer on pumping sump**



Broomby S&G Trap

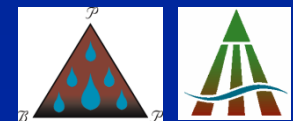
# Deferred application

## Preferred when:

- Green water can be applied with existing irrigation facilities (no added labour or equipment).

## Requires:

- Solids removal before storage
- Storage requires large ponds, commonly 2-8 Megalitres.
- Minimize volume by diverting stormwater.

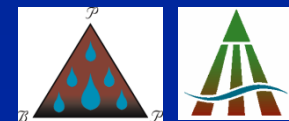


## Neil Innes-Smith – Trench under construction





# Static Screen, John van Adrichem



# Other options

Slurry pumps with a large sprinkler.

Tankers

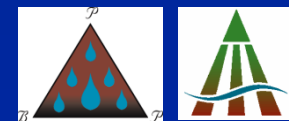
High labour requirement.

Hybrid systems; some direct and some deferred application.

Rainfall diversion; divert roof water.

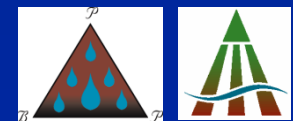
Consider stormwater diversion in non-milking period.

Bacterial treatment of ponds – breakup solids



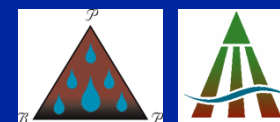
# Benefits of the project

- Advisers better equipped
- Facilities on farms improved; we started from a low base.
- Farmers more aware
- Innovation in new facilities



# Difficulties

- Some farmers not interested
- Incentive \$5,000, average cost \$18,000
- Difficult for some to meet project time limits
- Effluent management sometimes low priority
- Management difficult in some locations (areas with high rainfall, flat, high groundwater, no clay)
- Council requirements inconsistent



# Discussion questions

- What can be done now to improve effluent management?
- TDIA Code of Practice, possible license suspension; will it encourage better performance?
- The industry needs to demonstrate responsible environmental management; is the industry doing enough?
- How can industry help?

