

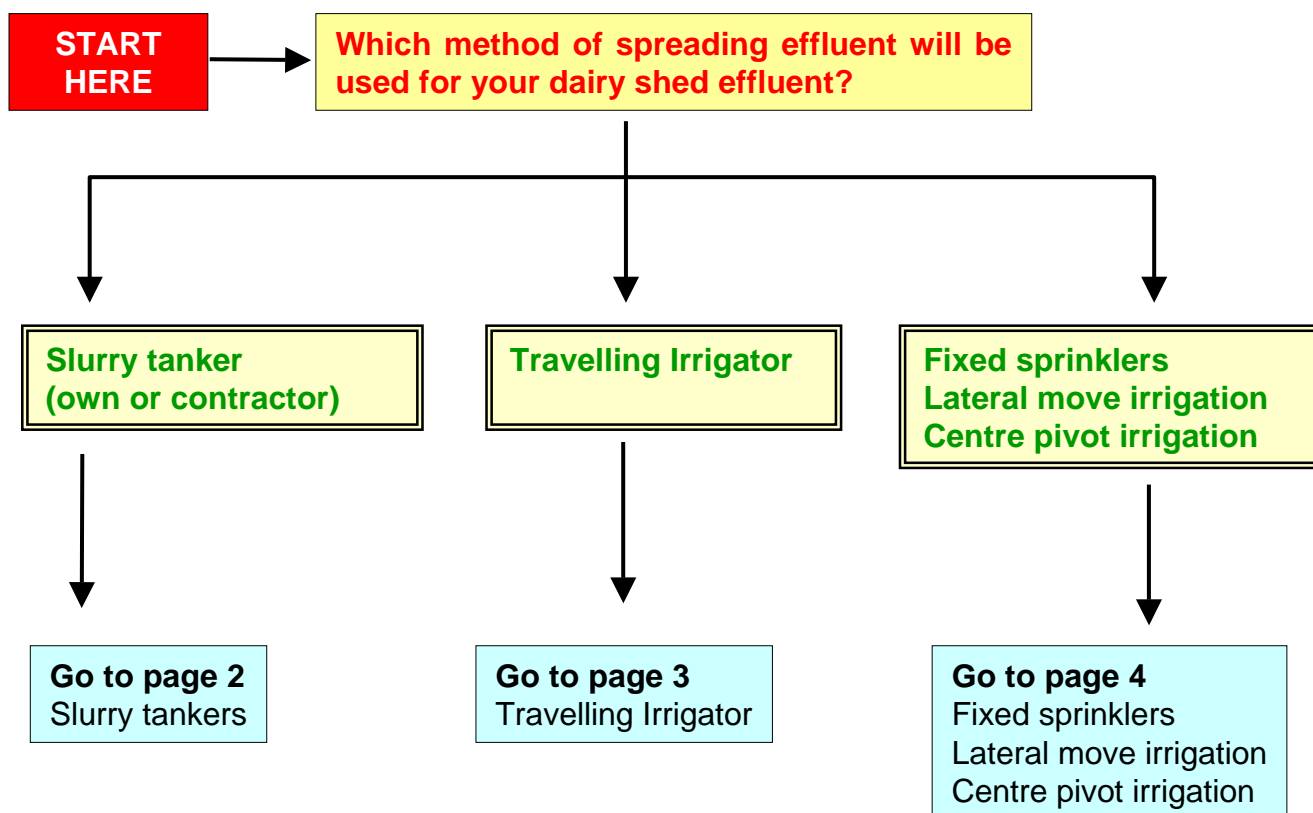
FLOW CHART FOR CHOOSING YOUR SYSTEM

Management of dairy shed effluent is mandatory for all dairies in South Australia. Management involves the collection, treatment, and spreading of effluent. How the effluent is collected and treated depends largely on how it is to be spread, as well as physical limitations of the site.

This decision aid is designed to help you choose the type of effluent collection and handling systems which are suitable for the spreading method you wish to use for your dairy shed effluent.

To start, choose the spreading method you would like to use, then follow the links which provide information on the components of the system which are needed to prepare the effluent for spreading by the method chosen.

When you have decided on the type of system which may suit your dairy, read Guideline Number 5, "Choosing an Effluent Management System" for details on regulations, environmental factors, and fundamentals of the different systems before you make your final decision.



SLURRY TANKERS

Use this page to obtain an outline of a system for collection and treatment of effluent for spreading with slurry tankers

**START
HERE**

How frequently do you wish to spread effluent through a slurry tanker?

Daily to weekly

Every 1 – 3 months

Once or twice a year

Requirements

- Collection sump or pit with at least 2 days capacity, or sized for frequency of cleanout.
 - Solids separation not necessary.
 - Agitation optional.
- See Guideline 9 for information on sumps and storage tanks*

Requirements

- Collection sump or pit should be sized for frequency of cleanout.
 - Solids separation not necessary.
 - Agitation necessary at cleanout.
- See Guideline 9 for information on sumps and storage tanks*

Requirements

- Storage or Solids pond sized for frequency of cleanout.
 - Solids separation optional. *See Guideline 7 Solids Separation Systems*
 - Mechanical removal of surface crust will be required at cleanout *See Guideline 12 Management of Solids*
 - Agitation necessary at cleanout.
 - Cleanout of pond prior to winter will provide sufficient storage capacity where wet weather spreading is not possible.
- See Guideline 8 for information on pond construction.*

Can you spread effluent in winter over areas which are not waterlogged, and of sufficient area to match the nutrients spread with pasture/crop growth rates and nutrient requirements?

See Guideline 6 (Climate and Soils) and 13 (Nutrient Budgeting) for more information

Yes

No

- Spread in winter over the larger area.
- Full winter storage of effluent not essential.
- High rainfall periods may require extra storage when daily spreading is not possible.

Wet weather storage will be required.
See Guideline 8 for information on pond construction

Optional extra

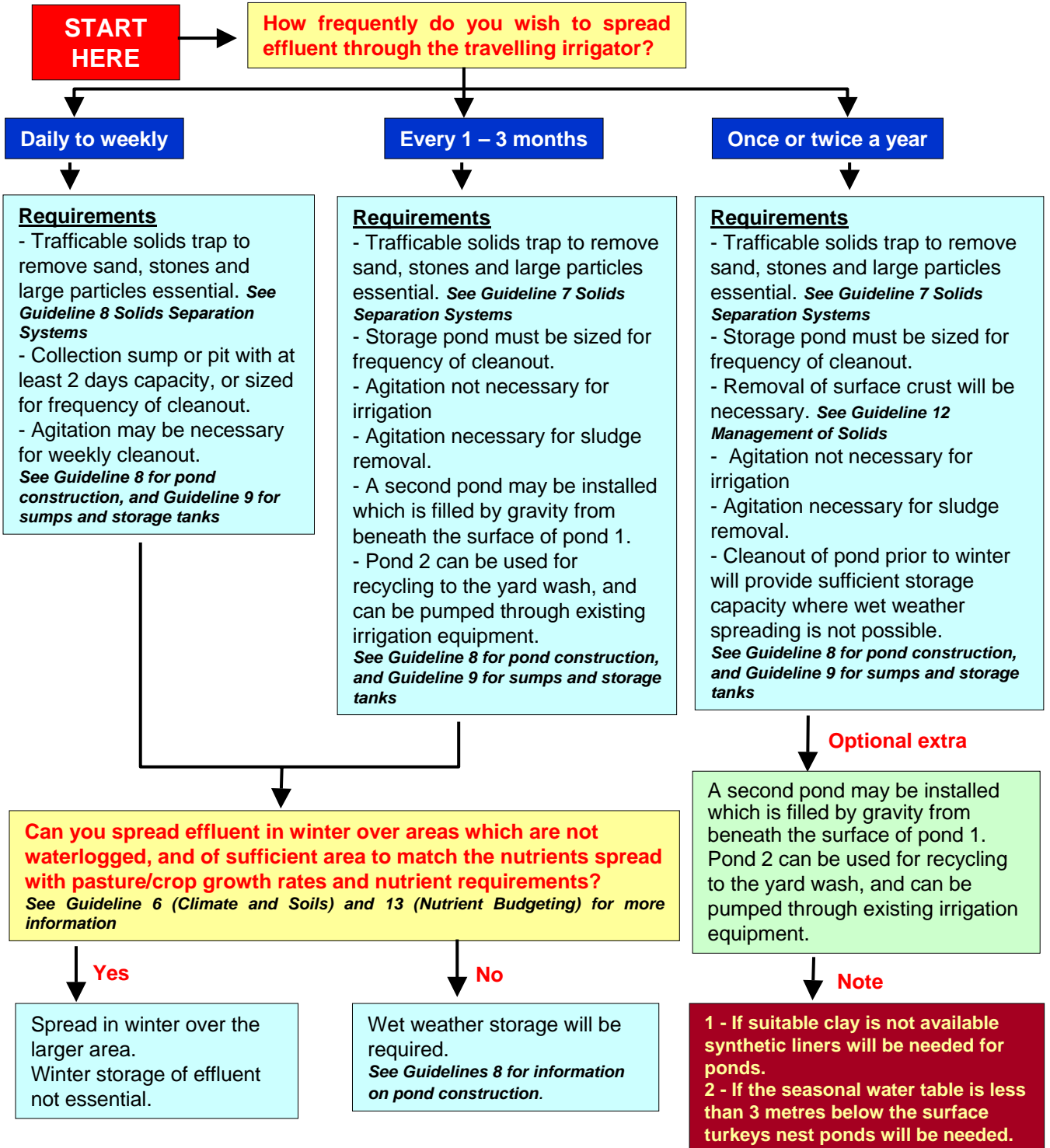
A second pond may be installed which is filled by gravity from beneath the surface of pond 1. Pond 2 can be used for recycling to the yard wash, and can be pumped through existing irrigation equipment.

Note

- 1 - If suitable clay is not available synthetic liners will be needed for ponds.**
- 2 - If the seasonal water table is less than 3 metres below the surface turkeys nest ponds will be needed.**

TRAVELLING IRRIGATOR

Use this page to obtain an outline of a system for collection and treatment of effluent for spreading with travelling irrigators.



FIXED SPRINKLERS, LATERAL MOVE AND CENTRE PIVOT IRRIGATORS

Use this page to obtain an outline of a system for collection and treatment of effluent for spreading with fixed sprinklers, lateral move and centre pivot irrigation systems.

**START
HERE**

Separation of solids which are larger than the smallest sprinkler nozzle is essential. The use of mechanical separators, or gravity separation systems are both suitable. See Guideline 7, Solids Separation Systems

Mechanical Separation Requirements

- Trap to remove sand and stones essential.
 - Collection sump or pit with at least 2 days capacity.
 - Agitation of effluent before separation advisable.
 - Solids drying/storage pad essential
 - Gravity separation terrace optional
 - Pond or short term storage tank for separated liquid essential.
 - Separated effluent can be pumped from storage tank/pond to irrigation system, or wet weather storage pond when required.
- See Guideline 8 for pond construction
Guideline 9 for sumps and storage tanks
Guideline 12 for management of solids*

Optional extra

The short term storage tank for separated liquid can be fitted with a draw off at 1 metre depth and be recycled to yard wash, the sediment can be returned to the collection pit for further processing.

Gravity System – Solids Pond Requirements

- Trap to remove sand and stones recommended.
 - Solids pond must be sized for frequency of cleanout, usually 1 – 2 times per year.
 - Removal of surface crust will be necessary.
 - Agitation will be necessary at cleanout.
 - A second pond which is filled by gravity from beneath the surface of pond 1 is essential.
 - Pond 2 should be sized to provide wet weather storage capacity.
 - Pond 2 can be used for recycling to the yard wash, and can be pumped through existing irrigation equipment.
 - Cleanout of both ponds prior to winter will provide sufficient storage capacity where wet weather spreading is not possible.
 - Note: If suitable clay is not available synthetic liners will be needed for ponds.
 - If the seasonal water table is less than 3 metres below the surface turkeys nest ponds will be needed.
- See Guideline 8 for pond construction
Guideline 9 for sumps and storage tanks
Guideline 12 for management of solids*

Can you spread effluent in winter over areas which are not waterlogged, and of sufficient area to match the nutrients spread with pasture/crop growth rates and nutrient requirements?

See Guideline 6 (Climate and Soils) and 13 (Nutrient Budgeting) for more information

Yes

- Spread in winter over the larger area.
- Winter storage of effluent not essential.

No

Wet weather storage will be required.
See Guideline 8 for pond construction.