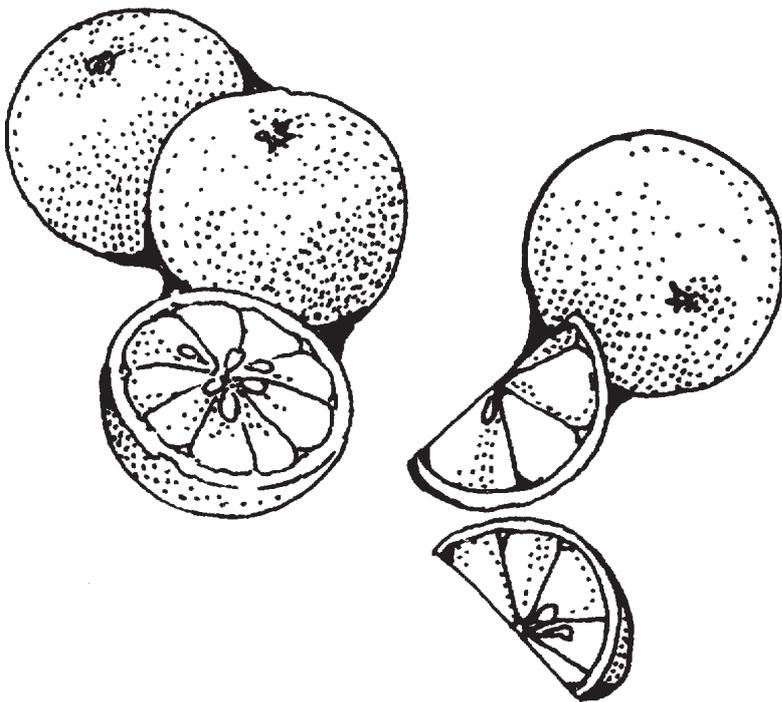
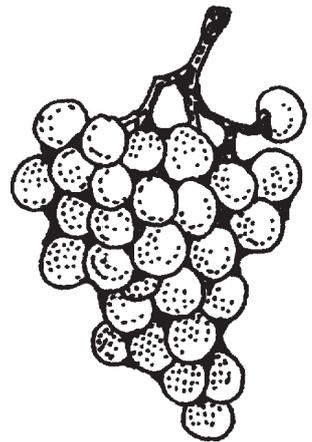




Planning Gardens



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Pitjantjatjara Council
October 94

Planning to Water Fruit Trees

This information sheet has been written to help people who are thinking about growing fruit trees around Homelands or Communities. Read the notes around the diagram before turning the page and completing the calculations.

The paddock size being used in this diagram is 50 metres x 50 metres. Draw a paddock size which suits the needs of the Community or Homeland.

Please look at the **Very Important** box on the back of this sheet. Answer these three questions first before planning the size of the garden. Find out how much water can be pumped into the tank every day.

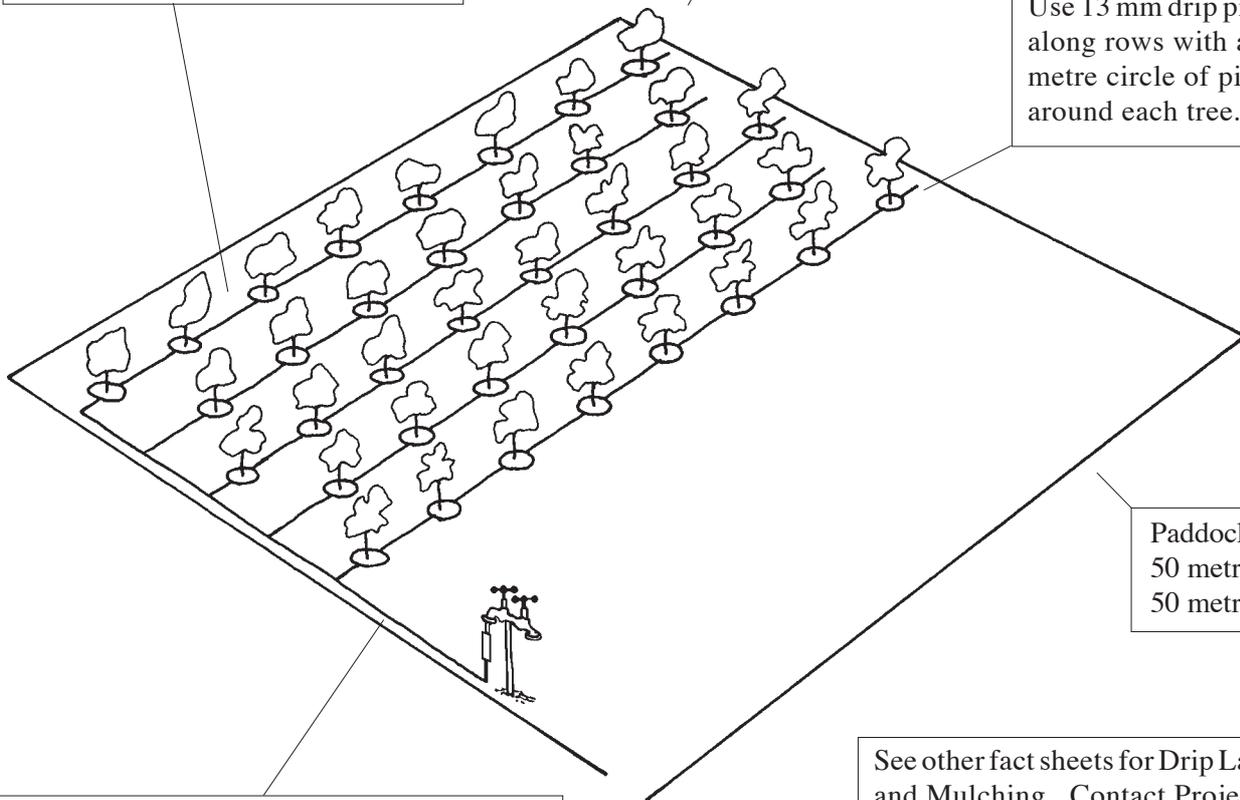
Remember: Water is needed for the rest of the garden and for the people living in the Community or Homeland.

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Plant the first row 5 metres off the side fence and 3 metres off the end fence with 6 metres between each tree. Space the rows 5 metres apart and plant the first tree in the second row 6 metres from the end fence.

Remember: The garden needs protecting from the wind so wind breaks need to be built.

Use 13 mm drip pipe along rows with a 4 metre circle of pipe around each tree.



Paddock Size
50 metres x
50 metres.

Use 13 mm drip pipe. If some of the trees are not receiving enough water, then increase the pipe size to 19mm or put half the trees on one tap and half on the second tap.

See other fact sheets for Drip Layout and Mulching. Contact Projects at the Pitjantjatjara Council Resource Centre in Alice Springs Tel. 89505413 Fax. 89534580 for Bore and Garden information.

Very Important

When Planning a Garden Please Answer these Questions:

Bore Name/No:

* How much salt is in the water to be used?

Answer: milligrams
per litre

* How much water does the garden need every day?

Answer: litres per day.

* How much water will the pump put in the tank every day?

Answer: litres per day.

* How much water is left over for people to use every day?

Answer: litres per day.

Calculations

It's necessary to find out how much water the fruit trees will use in the diagram on the previous page.

It's recommended to use 4 litre per hour drippers and 4 drippers for each tree.

* How many fruit trees are there in the paddock?

Answer: 38 fruit trees.....

* How many drippers for each tree?

Answer: 4 drippers.....

* How much water is delivered by each dripper in one hour?

Answer: 4 litres per hour.....

* How much water does each tree receive in one hour?
(4 drippers x 4 litres per hour = 16 litres per hour)

Answer: 16 litres per hour.....

* How much water does each tree receive when the drippers are
turned on for 8 hours (1 day). (16 litres per hour x 8 hours = 128 litres)

Answer: 128 litres per day.....

* How much water is needed to irrigate 38 fruit trees.
(38 fruit trees x 128 litres = 4,864 litres).

Answer: 4,864 litres per day.....

Daily Water Needs

Notes:

1. After planting the fruit trees irrigate them for 8 hours (one day) on Monday, Wednesday and Friday every week.
2. Mulch all fruit trees and vines to make better use of the water.
3. If more fruit trees, vines, vegetables, lawn and shade and shelter trees are planted, more water will be needed.
4. Complete the following table to determine how much water should be pumped every day.

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Garden		4,864 litres		4,864 litres		4,864 litres	
People							
Water to be pumped every day	_____	_____	_____	_____	_____	_____	_____

- * Please remember that if the pump stops working on Friday - Will there be enough water in the tank for the garden and the people to drink while the pump is being fixed?

Planning Fencing for Gardens-1

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October 94

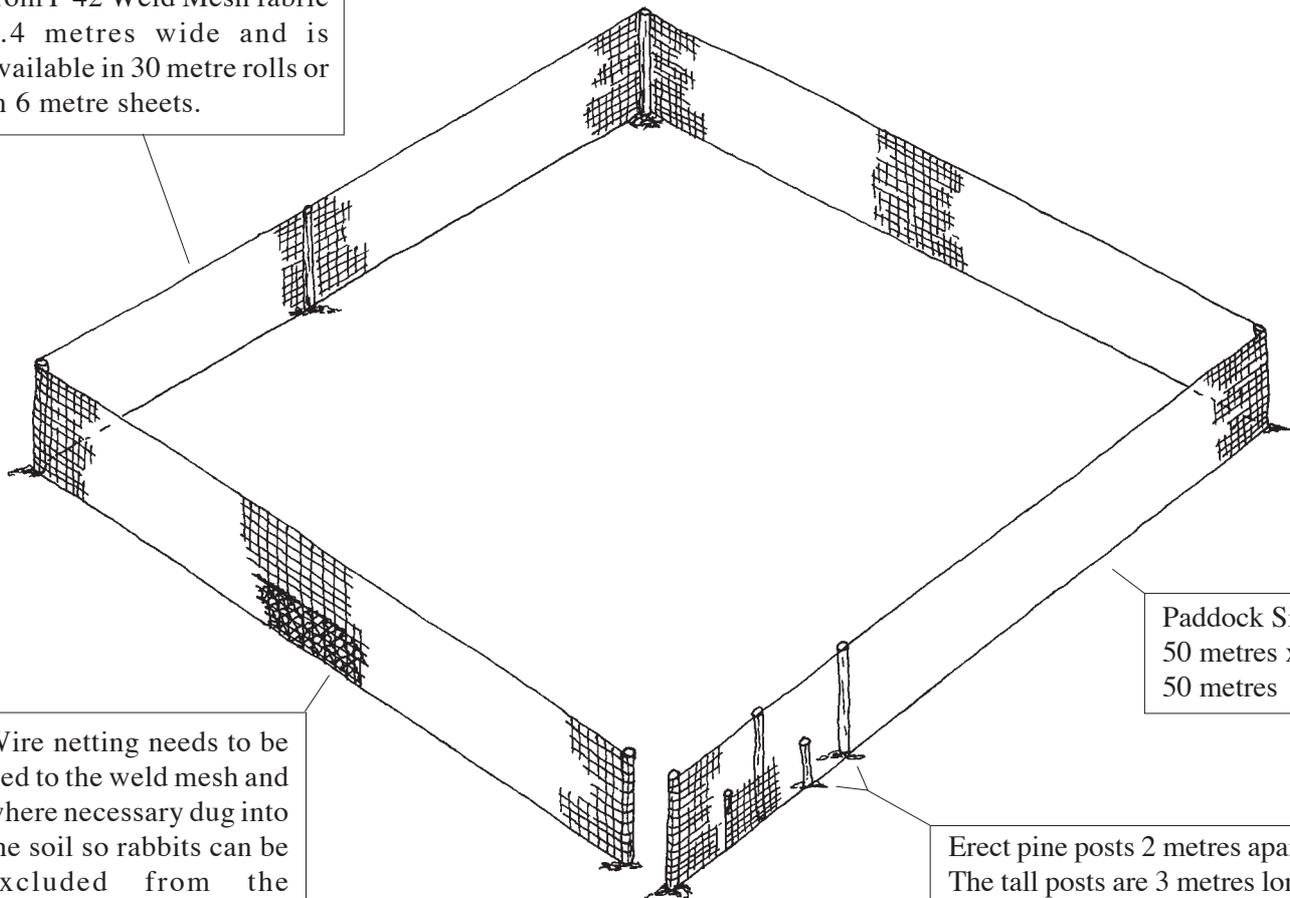
This information sheet describes a type of fence that can be erected around gardens. If fruit trees, grape vines and vegetables are being planted in the garden, they will need to be protected from rabbits, horses, cattle, donkeys and camels.

Wire netting with barb wire on top, is not strong enough and is easily broken down. If the netting is burnt by fire, it deteriorates quickly. Wire netting needs to be attached to a strong fence to give it support.

The diagram on this page illustrates a high fence built with weld mesh. These are very easy fences to build and are high enough to stop animals putting their heads over the top and breaking them down. Breakages usually occur when thirsty animals are attracted by the water in the garden.

A materials list for a high fence is on the next page. Complete the costing of each item, then complete the next table which provides the costing for a high fence for a 50 metre x 50 metre garden paddock.

This is a high fence made from F 42 Weld Mesh fabric 2.4 metres wide and is available in 30 metre rolls or in 6 metre sheets.



Paddock Size
50 metres x
50 metres

Wire netting needs to be tied to the weld mesh and where necessary dug into the soil so rabbits can be excluded from the garden. A suitable size of wire netting to use is 1,050 mm wide by 1.4 mm and is available in 50 and 100 metre rolls. Other sizes can be used to keep out rabbits.

Contact Tubemakers in Alice Springs
Tel.89523222 or Fax.89530922 for Weld
Mesh, Wire Netting, Barb Wire and Star
Droppers. Softwoods in Adelaide Tel.
(08) 83461499 or Fax. (08) 83462667
for Pine Poles and Pine Posts.

Erect pine posts 2 metres apart.
The tall posts are 3 metres long
with a small end diameter of
100-125 mm. The small posts
are 1.8 metres long with a small
end diameter of 75-100 mm.
Star droppers 1.8 metres long
can be used in place of the short
pine posts.

Cost of Materials

Contact the following Companies and complete the pricing of the materials list below. Other Companies may provide better prices and can be used in place of these Companies. Make sure freight costs are included when completing the list.

From Tube Makers (Tel. 08-89523222 or Fax. 08-89530922).

- | | |
|-----------------------------------------------------------------|-------------|
| 1. F 42 Weld Mesh (30 metre roll) | Cost: |
| 2. Wire Netting (1,050 mm wide x 1.4 mm x 100 metre long) | Cost: |
| (1,050 mm wide x 1.4 mm x 50 metre long) | Cost: |
| 3. Tie Wire (1.6 mm x 3 kg roll) | Cost: |
| 4. Star Droppers (1.8 metres long in a bundle of 10 droppers) | Cost: |

From Softwood Holdings (Tel. 08-83461499 or Fax. 08-83462667).

- | | |
|------------------------------------------------------------------|-------------|
| 1. Pine Poles (100-125 mm small end diameter x 3 metres long) | Cost: |
| 2. Pine Posts (75-100 mm small end diameter x 1.8 metres long) | Cost: |

Cost of Fence

Paddock Size	50 metres x 50 metres = 2,500 square metres. (one quarter of a hectare)	
Fence Length	200 metres.	
Rolls of Mesh	7 rolls of F 42 Weld Mesh needed (30 metre rolls).	Cost:
Wire Netting	2 rolls of galvanised wire netting. (1,050 mm wide x 1.40 mm x 100 metres long).	Cost:
Pine Poles	50 x 3 metre poles.(approximately 25 poles per tonne)	Cost:
	50 x 1.8 metre posts.(100 per tonne)	Cost:
	or 50 x 1.8 metre star droppers	Cost:
Tie Wire	3 rolls of 1.6 mm x 3 kg rolls	Cost:
Gates		Cost:
		Total:

Notes

Planning Fencing for Gardens-2

This information sheet describes a type of fence that can be erected around gardens. If fruit trees, grape vines and vegetables are being planted in the garden, they will need to be protected from rabbits, horses, cattle, donkeys and camels.

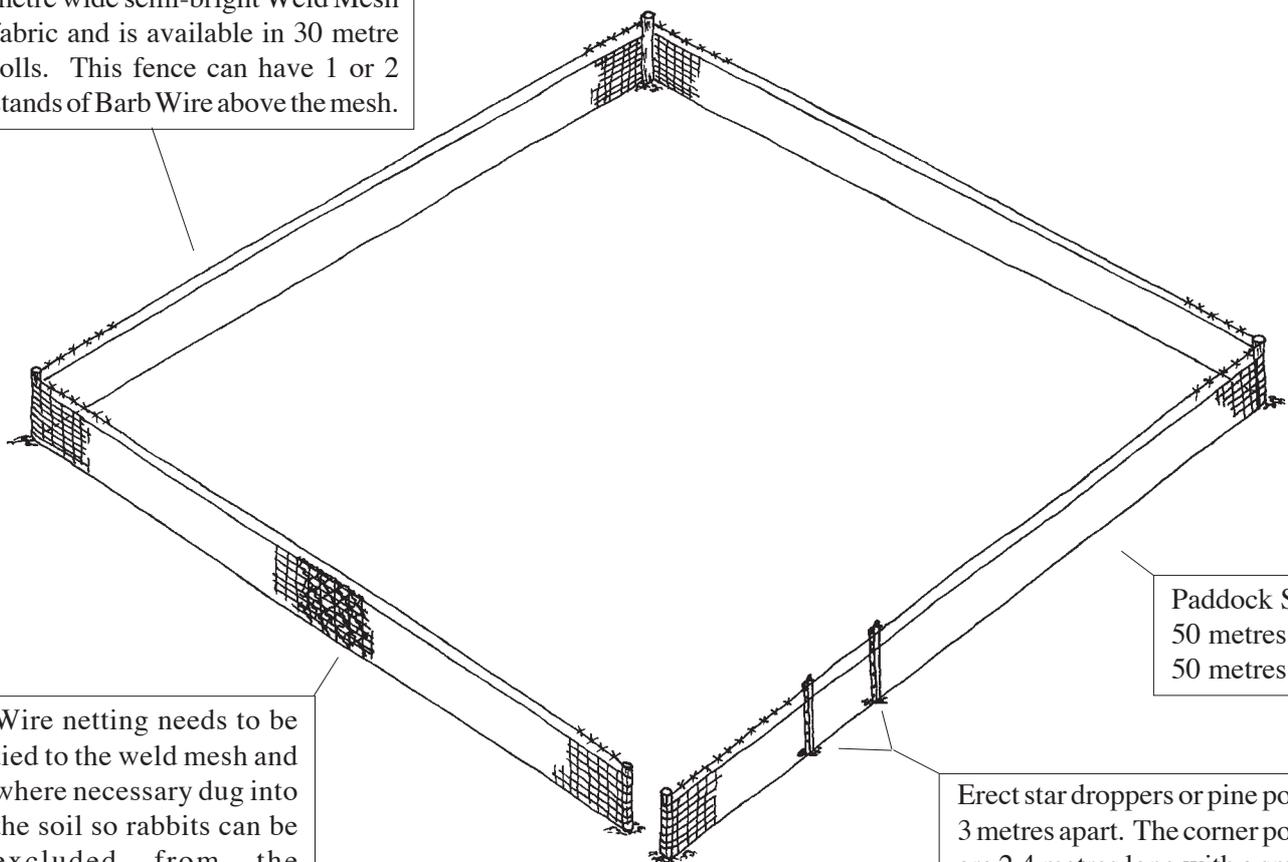
Wire netting with barb wire on top, is not strong enough and is easily broken down. If the netting is burnt by fire, it deteriorates quickly. Wire netting needs to be attached to a strong fence to give it support.

The diagram on this page illustrates a medium height fence built with weld mesh. These are very easy fences to build, however animals are able to put their heads over the top and try to break them down. Breakages usually occur when thirsty animals are attracted by the water in the garden. One or two strands of barb wire should be put on top of the mesh to help keep animals out.

A materials list for a medium height fence is on the next page. Complete the costing of each item, then complete the next table which provides the costing for a medium height fence for a 50 metre x 50 metre garden paddock.

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This is a medium height fence made from 150 mm x 100 mm x 1.10 metre wide semi-bright Weld Mesh fabric and is available in 30 metre rolls. This fence can have 1 or 2 stands of Barb Wire above the mesh.



Paddock Size
50 metres x
50 metres

Wire netting needs to be tied to the weld mesh and where necessary dug into the soil so rabbits can be excluded from the garden. A suitable size of wire netting to use is 1,050 mm wide by 1.4 mm and is available in 50 and 100 metre long rolls. Other sizes can be used to keep out rabbits.

Contact Tubemakers in Alice Springs
Tel.89523222 or Fax.89530922 for Weld
Mesh, Wire Netting, Barb Wire and Star
Droppers. Softwoods Adelaide Tel. (08)
83461499 or Fax. (08) 83462667 for
Pine Poles and Pine Posts.

Erect star droppers or pine posts
3 metres apart. The corner posts
are 2.4 metres long with a small
end diameter of 100-125 mm. If
small posts are being used they
are 1.8 metres long with a small
end diameter of 75-100 mm.
Star droppers 1.8 metres long
can be used in place of the pine
posts.

Cost of Materials

Contact the following Companies and complete the pricing of the materials list below. Other Companies may provide better prices and can be used in place of these Companies. Make sure freight costs are included when completing the list.

From Tube Makers (Tel. 08-89523222 or Fax. 08-89530922).

- | | |
|----------------------------------------------------------------------------------|-------------|
| 1. 150 mm x 100 mm x 1.10 metres wide semi-bright
Weld Mesh (30 metre roll) | Cost: |
| 2. Wire Netting (1,050 mm wide x 1.4 mm x 100 metre long) | Cost: |
| (1,050 mm wide x 1.4 mm x 50 metre long) | Cost: |
| 3. Barb Wire (1.8 mm x 500 metre roll) | Cost: |
| 4. Tie Wire (1.6 mm x 3 kg roll) | Cost: |
| 5. Star Droppers (1.8 metres long in a bundle of 10 droppers) | Cost: |

From Softwood Holdings (Tel. 08-83461499 or Fax. 08-83462667).

- | | |
|-------------------------------------------------------------------|-------------|
| 1. Pine Posts (100-125 mm small end diameter x 2.4 metres long) | Cost: |
| 2. Pine Posts (75-100 mm small end diameter x 1.8 metres long) | Cost: |

Cost of Fence

Paddock Size	50 metres x 50 metres = 2,500 square metres. (one quarter of a hectare)	
Fence Length	200 metres.	
Rolls of Mesh	7 rolls of 150 mm x 100 mm x 1.10 metres wide semi-bright Weld Mesh needed (30 metre rolls).	Cost:
Wire Netting	2 rolls of galvanised wire netting. (1,050 mm wide x 1.40 mm x 100 metres long).	Cost:
Pine Posts	5 x 2.1 metre corner posts. (approximately 40 posts per tonne)	Cost:
	67 x 1.8 metre posts.(100 posts per tonne)	Cost:
	or 67 x 1.8 metre star droppers	Cost:
Tie Wire	3 rolls of 1.6 mm x 3 kg rolls	Cost:
Barb Wire	1 roll of 1.8 mm x 500 metres	Cost:
Gates		Cost:
		Total:

Notes