

Easy
DIY

Irrigation Planner



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Easy water-wise irrigation for gardens & lawns

Plan

Getting started on your water-wise irrigation system is easy as Plan, Select, Create!

First you need to know how big your garden is so you can position your Sprays, Drippers and Pop-Ups correctly. Once you know this, you will be able to create a layout of your system and an accurate shopping list. For smaller areas, you can step it out, but for best results measure your home and gardens. To get started you need to do a **bucket test**, then **measure and plan**.

Bucket test

It is important to know the available water flow from the tap. To do this, turn the tap on full, slide a 9 litre bucket under the tap, and time how many seconds it takes to fill the bucket to the 9 litre mark. Then you can find your **flow rate** from the bucket test chart inside the planner.







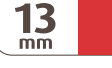



















Measure & plan

Time to sharpen your pencil! On the graph paper provided inside this planner, draw a map of your property and mark all your garden taps and the areas to be watered.



Select

Identify your garden areas and choose the components you need for your irrigation system from the shopping list. Icons and colours make the components easy to position on your plan, and to find in store.

What do you want to water?	Suggested Method			Fittings & Pipe	
	Spray	Drip	Pop-Up	4 mm	13 mm
   Garden Beds	 Spray	 Drip		 4 mm	 13 mm
  Lawn			 Pop-Up		 19 mm
 Vegetable Patch	 Spray	 Drip		 4 mm	 13 mm
  Pot Plants & Pergolas		 Drip		 4 mm	 13 mm
  Greenhouses & Pergolas	 Spray			 4 mm	 13 mm

Create

Time spent on planning and set up will be richly rewarded by having an efficient irrigation system in place. To draw up your irrigation plan, position components on the garden plan, then create your list of fittings and sprays in the shopping list section which contains flow and spacing information. Add extra supply lines if you need them.



Tips

Perform the bucket test at the time of day you plan to run your irrigation system.

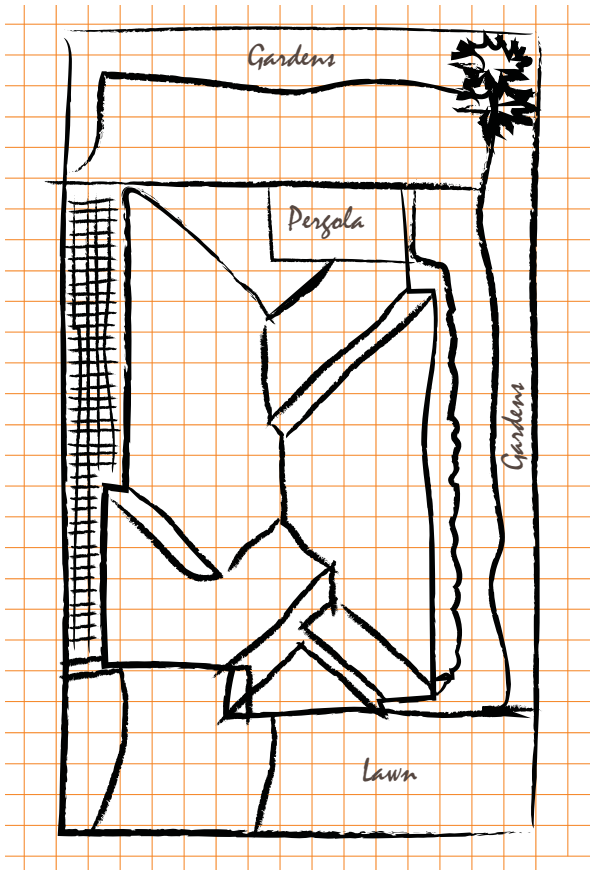
Don't run the irrigation system at the same time as showers and washing or you will have less flow than measured.

Enjoy

Let Neta bring your garden to life with an irrigation system. A Neta irrigation system will allow you to water your whole garden by turning on your garden tap, giving you more time to enjoy your garden.

How to measure & plan your garden and lawn irrigation system

1. Draw your plan



Measure and draw your home, garden & lawn areas

Draw a plan to scale on the graph paper inside this planner. Choose a scale and write this in the SCALE section. Include all garden beds, pathways, lawns, garden sheds, pergolas, patios and driveways. For best results, measure your home and gardens accurately with a tape measure.

Measure your water flow

Measure the available water flow from the tap that will supply the system. Do this with a **bucket test**. Turn the tap on full and slide a 9 litre bucket under the tap and time how long it takes to fill to the 9 litre mark. Find the water supply capacity by using the bucket test table.

Mark on your plan where each watering method will be used

Match the different plant groups in your garden to different watering methods.

- Use Drippers for shrubs, ground cover, pot plants and pergolas.



Drip

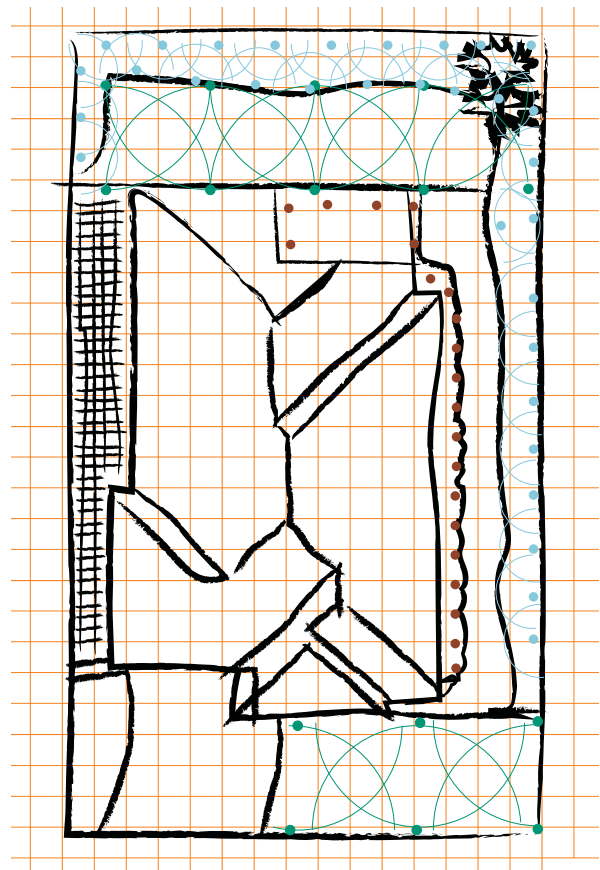
- Use Micro Sprays for garden beds, shrubs, ground cover, greenhouses and pergolas.



Spray

- Use Drippers or Misters for pots and hanging baskets.

2. Watering methods



- Use 50mm Pop-Up Sprinklers for short lawns and 100mm for long lawns.



In the example above, Micro Sprays (blue) are marked where there are garden beds, Pop-Ups (green) where there are lawns, and Drippers (brown) in the pergola and along the narrow side of the garden.

Tips

Drippers are used in the garden bed along the side of the house because the garden bed is too narrow for Micro Sprays - they would spray onto the path and waste water.

Select watering methods in the shopping lists

Selecting types of Sprays, Drippers & Pop-Ups is a personal choice. Consider pattern, flow rate and radius to help make these decisions.

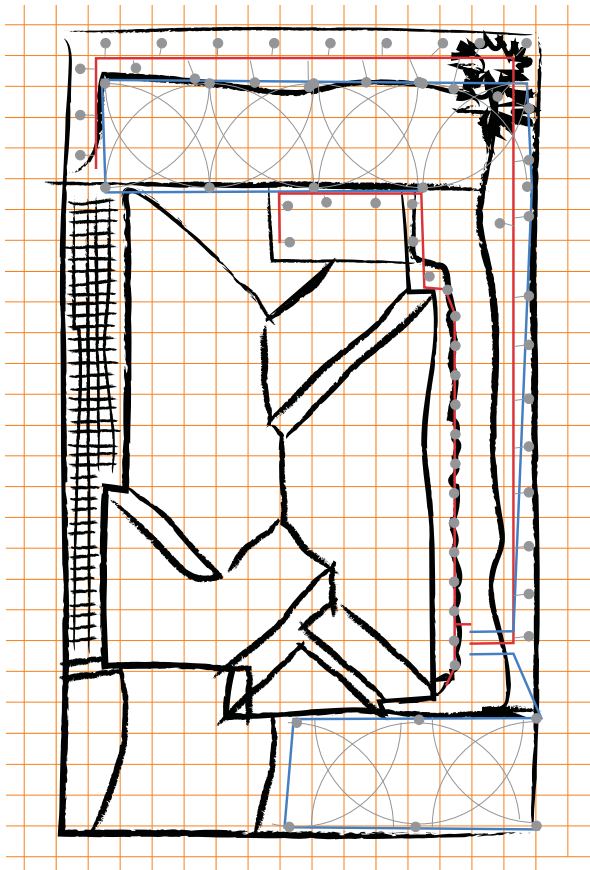
- Use quarter circle pattern in the corner of lawns and gardens.
- Use half circle pattern along the edges and against fences or buildings.
- Place full circle pattern in the center of large areas.

Tips

Micro Sprays, Drippers and Pop-Up Sprinklers should not be mixed together on the same watering line. This is because there are different flow rates required for Sprays and Drippers.

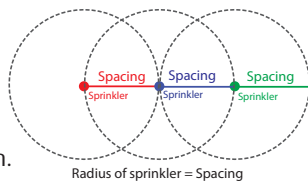


3. Decide the number of lines



Mark the positions on your plan

Space Sprays & Pop-Ups apart by the same distance as their spray radius. This ensures that the water spray will overlap. Overlapping spray patterns achieves the most even water coverage for your garden.



Drippers should be positioned at the base of each plant so that the water reaches the root zone. Drippers are ideal for narrow, windy or sloping garden beds where Sprays would waste water.

Decide the number of lines

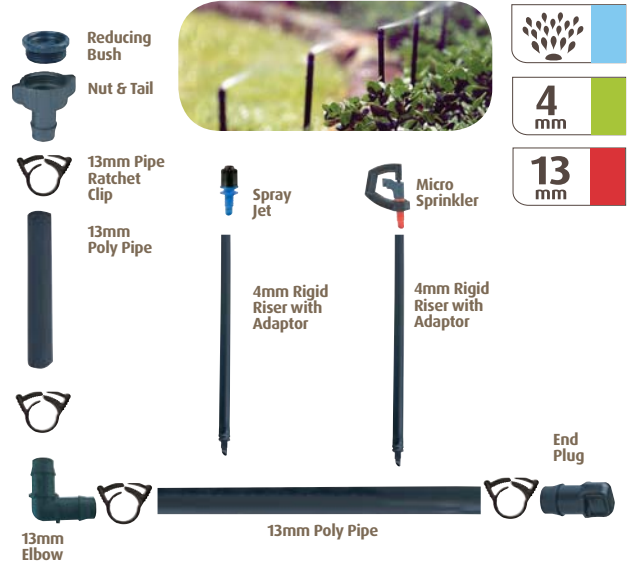
As a guide, most homes will have an average of 4 watering lines. To work out how many lines you will need:

1. Write the total number of each type Spray, Dripper and Pop-Up in the shopping list and work out the flow rate.
2. Transfer the total flow rate to the **number of lines** table.
3. Add the **bucket test** flow rate information as indicated.
4. Work out the **number of lines** as indicated.
5. Round up the totals to the nearest whole number.
(for example 2.7 will be rounded up to 3)

Tips

For a full list of handy installation tips, please refer to the section next to the garden plan graph paper in this planner.

Spray System



Drip System



Pop-Up System



Create your shopping list For your convenience, the flow rate of each product is stated as Lpm (Litres per minute)

Spray System



	Watering method	Pattern	Radius spacing (m)	Flow rate (Lpm)	Qty	Total flow rate
	Spray Jet Full Circle		1.8	0.8		
	Spray Jet Half Circle		1.8	0.8		
	Spray Jet Quarter Circle		1.8	0.8		
	Micro Spray Blue Base Full Circle		2.2	0.7		
	Micro Spray Blue Base Half Circle		2.2	0.7		
	Micro Spray Blue Base Quarter Circle		2.2	0.7		
	Micro Spray Blue Base Rectangular Strip		6x0.6	0.7		
	Mister Yellow Base Full Circle		0.5	1.5		
	Spectrum Spray Jet Thread		1.8	0.8		
	Adjustable Micro Spray Full Circle		3.5	1.5		
	Adjustable Micro Spray Half Circle		2.5	1.5		
	Adjustable Micro Spray Quarter Circle		2.4	1.5		
	Micro Sprinkler Blue Full Circle		3.2	0.8		
	Adjustable Micro Sprinkler		0-3.7	1.5		
	Rotor Rain Green		4.3	1.6		
	Adjustable Spectrum Spray Jet Stake		1.8	0.8		

Total Flow Rate

Add this flow rate to the number of lines table

Product	Description	Qty	
	Punch Spanner	Punches holes in Poly Pipe to attach 4mm fittings. Spanner used to insert and remove Micro Sprays in tubing. Hole in handle used to remove caps from two-piece Micro Sprays for cleaning.	
	Rigid Riser 200mm/ 300mm/ 400mm	200mm - Water above young plants or under advanced plants. 300mm - Water advanced plants. 400mm - Extra height, water large gardens areas.	
	13mm Rigid Pipe Stake	Holds Poly Pipe in place and supports the Risers.	
	Rigid Riser Stake	Holds Riser in place, move around to position close to the plant.	
	Riser Jet Stake & Tube	Saves time. Choose a Spray or Sprinkler and attach to Stake.	
	13mm Barb Joiner	Repairs or joins 13mm Poly Pipe.	
	13mm Barb Elbow	Creates corners in 13mm Poly Pipe.	
	13mm Barb Tee	Used to branch 13mm Poly Pipe.	
	13mm Barb End Plug	Plugs the end of 13mm Poly Pipe.	
	13mm In-Line Valve	Used in 13mm Poly Pipe line to isolate, regulate or flush the water supply.	
	13mm Pipe Ratchet Clip	Secures fittings to Poly Pipe. Use with every connection.	
	13mm Garden Pol	Available in 25m and 50m coils.	

Drip System



	Watering method	Flow rate (Lpm)	Qty	Total flow rate
	P4 Snap Dripper	0.7		
	Adjustable Dripper - 4mm Barb	0.55		
	Agri Dripper 2 Lph	0.03		
	Agri Dripper 4 Lph	0.07		
	Agri Dripper PC 2 Lph (Pressure compensating)	0.03		
	Agri Dripper PC 4 Lph (Pressure compensating)	0.07		
	Adjustable Dripper Stake	0.55		
	Midi Dripper on Stake	0.07		

Total Flow Rate

Add this flow rate to the number of lines table

Product	Where to use	Qty	
	Pot Stake	Use in pot plants to support Drippers.	
	Punch Spanner	Punches holes in Poly Pipe to attach 4mm fittings. Spanner used to insert and remove Micro Sprays in tubing. Hole in handle used to remove caps from two-piece Micro Sprays for cleaning.	
	13mm Barb Joiner	Repairs or joins 13mm Poly Pipe.	
	13mm Barb Elbow	Creates corners in 13mm Poly Pipe.	
	13mm Barb Tee	Used to branch 13mm Poly Pipe.	
	13mm Barb End Plug	Plugs the end of 13mm Poly Pipe.	
	13mm In-Line Valve	Used in 13mm Poly Pipe to isolate, regulate or flush the water supply.	
	13mm Pipe Ratchet Clip	Secures fittings to Poly Pipe. Use with every connection.	
	13mm Garden Pol	Available in 25m and 50m coils.	
	4mm Flexi Tube	Available in 5m, 10m, 25m, 30m, 50m 100m & 250m coils.	
	4mm Barb Joiner	Connect 4mm tube to main Poly Pipe supply line.	
	4mm Barb Tee	Used to branch 4mm Tube in 3 directions.	
	4mm Barb Elbow	Creates corners in 4mm Tube.	
	4mm Goof Plug	Repairs and seals holes in Poly Pipe.	
	4mm Cross	Ideal for greenhouses and pergolas. Used for connecting 4mm tube to water a cluster of plants.	
	4mm In-Line Valve	Used to regulate the water flow to different plants.	

Time & Water Saving

Product	Where to use	Qty	
	Adjustable Sprays & Sprinklers	Adjustable Sprays and Sprinklers increase the wetting area radius as plants grow.	
	Stake Sets	Stakes are available pre assembled with Tube, Sprays and Sprinklers. Choose Stake Assemblies for convenience and to save time.	

Create your shopping list

Pop-Up System



Watering method	Pattern	Radius spacing (m)	Flow rate (Lpm)	Qty	Total flow rate
Pop-Up Sprinkler Full Circle		3.5	10		
Pop-Up Sprinkler Three Quarter Circle		3.5	7.5		
Pop-Up Sprinkler Half Circle		3.5	5		
Pop-Up Sprinkler Quarter Circle		3.5	3		
Pop-Up Sprinkler Adjustable Arc		3.5	8.5		
Pop-Up Sprinkler Centre Strip		1.1x1.8	5		
Pop-Up Sprinkler Narrow Strip		1.1x1.8	5		

Total Flow Rate



Add this flow rate to the number of lines table

Product	Where to use	Qty
19mm Barb Joiner	Repairs or joins 19mm Poly Pipe.	
19mm Barb Elbow	Creates corners in 19mm Poly Pipe.	
19mm Barb Tee	Used to branch 19mm Poly Pipe.	
19mm Barb x 1/2" Male Threaded Elbow	Used at the end of the line to connect a Pop-Up to 19mm Poly Pipe.	
19mm Barb x 1/2" Male Threaded Tee	Creates a branch in 19mm Poly Pipe to connect Pop-Ups.	
19mm Barb End Plug	Plugs the end of 19mm Poly Pipe.	
19mm In-Line Valve	Used in 19mm Poly Pipe to isolate, regulate or flush the water supply.	
19mm Pipe Ratchet Clip	Secures fittings to Poly Pipe. Use with every connection.	
19mm Garden Pol	Available in 25m and 50m coils.	

Accessories

Product	Where to use	Qty
13mm & 19mm Saddle Clamps	Keeps Poly Pipe tidy by attaching to fences, posts and pergola structures. Prevents sagging and twisting.	
13mm & 19mm Saddle Clamps with Nails	Keeps Poly Pipe tidy by attaching to fences, posts and pergola structures. Prevents sagging and twisting. Nail included.	
Cable Ties 150mm, 200mm, 300m	Convenient Cable Ties for general purpose use around the garden. The release tab allows the Cable Tie to be reused.	
13mm & 19mm Pipe Ratchet Clips	Secures fittings to Poly Pipe. Use with every connection.	
Punch Spanner	Punches holes in Poly Pipe to attach 4mm fittings. Spanner used to insert and remove Micro Sprays in tubing. Hole in handle used to remove caps from two-piece Micro Sprays for cleaning.	
Goof Plugs	Repairs and seals holes in Poly Pipe.	

Bucket test

Do the bucket test, and then find your flow rate from the tables below.



Bucket test | Add this flow rate to the flow rate | number of lines table

Time to fill a 9 litre bucket in seconds	10	11	12	13	14	15	16	17
Flow rate (Lpm)	49	44	41	37	35	32	30	29
Time to fill a 9 litre bucket in seconds	18	19	20	21	22	23	24	25
Flow rate (Lpm)	27	26	24	23	22	21	20	19
Time to fill a 9 litre bucket in seconds	26	27	28	29	30	31	32	33
Flow rate (Lpm)	19	18	17	17	16	16	15	15
Time to fill a 9 litre bucket in seconds	34	35	36	37	38	39	40	41
Flow rate (Lpm)	14	14	14	13	13	12	12	12

Number of lines

Product	Total flow rate	Bucket test flow rate (Lpm)	Equals	Number of lines
Spray System		÷	=	↑
Drip System		÷	=	↑
Pop-Up System		÷	=	↑

1. Enter the total flow rate from each of the shopping lists.
2. Enter the flow rate from the bucket test.
3. Work out the number of lines.
4. Round up to find the number of lines you will need.
5. Remember to keep Sprays, Drippers & Pop-Ups on separate lines.

Connect to the tap



Spray & Drip

Product	Where to use	Spray	Drip	Number of lines	Total required
Pressure Reducer	Reduces water pressure and maintains optimal Dripper and Spray performance.		✓		
13mm Uni Nut & Tail	Connects 13mm Poly Pipe to the tap.	✓	✓		
13mm In-Line Filter	Filter out particles in the water supply. Install in 13mm Poly Pipe and use Ratchet Clips to secure.	✓	✓		
13mm Click-on Connector	Connects 13mm Poly Pipe to the tap. Easy to disconnect if required.				
13mm Click-on Joiner & Bug Cap	Clicks into hose connector, cap keeps ants and bugs out.				

Pop-Ups

Product	Where to use	50mm	100mm	Number of lines	Total required
19mm Uni Nut & Tail	Connects 19mm Poly Pipe to the tap.	✓	✓		
19mm In-Line Filter	Filter out particles in the water supply. Install in 19mm Poly Pipe and use Ratchet Clips to secure.	✓	✓		

Installation hints

Poly Pipe & Fittings

- If you need to straighten **Poly Pipe**, unroll and place it in the sun with bricks to hold it down.
- Handy tools are secateurs for cutting **Poly Pipe** and multi grips for tightening **Pipe Ratchet Clips**.
- **Poly Pipe** will bend slightly around a corner, but if it looks like kinking, use an **Elbow Fitting**.
- Run water through all lines to remove debris before attaching **Sprays, Drippers** or **Sprinklers**.
- In cold weather, it may be necessary to dip the end of the **Poly Pipe** in hot water to make it soft and easier to join fittings.
- Use **Pipe Ratchet Clips** at every joint to secure fittings.



Spray & Sprinkler Systems

- Use a **Stake** to keep **Risers** upright.
- A **Rigid Pipe Stake** will also secure the main pipe to the ground.
- A **Rigid Riser Stake** is best when using **4mm Tube** to locate the spray away from the **Poly Pipe**.



Dripper Systems

- **Drippers** are also available with **Stakes** attached, for positioning in a pot or next to a plant.
- Use a **Pressure Reducer** for each dripper watering line to maintain the correct pressure.
- **Drippers** can be pushed directly into **Poly Pipe**. Use a **Punch Spanner** to pierce hole first.
- Use **Pressure Compensating Drippers** on hilly or sloping gardens to maintain water pressure.
- **Drippers** are ideal in windy spots to avoid water evaporation.



Pop-Up Systems

- Always ensure that the top of the **Sprinkler** is set slightly above ground level and not at the level of the grass.
- Run water through all lines to remove debris before attaching nozzles.
- Choose a **50mm Pop-Up** for shorter lawns and **100mm Pop-Up** for longer lawns.



Useful Accessories

- Use the **Punch Spanner** to pierce a hole in the pipe for **Rigid Risers** or **4mm Joiners**.
- Use the **Punch Spanner** to screw **Micro Sprays** or **Spray Jets** into **Rigid Risers**.
- Use the hole in the handle of the **Punch Spanner** to pull apart **Micro Sprays** for cleaning.
- If you punch a hole in the wrong place use a **Goof Plug** to re-seal it.
- Install an **In-Line Filter** to filter out particles in the water supply.
- Install an **In-Line Valve** to isolate, regulate or flush the water supply.
- Consider installing an **Electronic** or **Manual** style **Tap Timer**, it will help you manage how much water is used and when.



Multi tap outlets are good when you need to run multiple lines from one tap. **Timers** add control over watering times.

Efficient irrigation

Watering chart

Watering only when your plants need moisture is the key to water-wise irrigation and healthy gardens. This chart gives you a basic guide to watering times.

CLIMATE				
LAWNS				
Watering method	Soil type	Cool to warm 15-25°C	Warm to hot 25-35°C	Very hot >35°C
Pop-Ups	Clay	20-30 mins every 8 th day	20-30 mins every 6 th day	20-30 mins every 4 th day
	Loam	10-20 mins every 6 th day	10-20 mins every 5 th day	10-20 mins every 3 rd day
	Sandy	5-10 mins every 4 th day	5-10 mins every 2 nd day	5-10 mins every day
GARDENS				
Micro Sprays & Sprinklers	Clay	30-40 mins every 6 th day	30-40 mins every 5 th day	30-40 mins every 3 rd day
	Loam	20-30 mins every 5 th day	20-30 mins every 3 rd day	20-30 mins every 2 nd day
Spray	Sandy	10-20 mins every 3 rd day	10-20 mins every 2 nd day	10-20 mins every day
Drippers	Clay	4-6 hours every 6 th day	4-6 hours every 5 th day	4-6 hours every 3 rd day
	Loam	2-4 hours every 5 th day	2-4 hours every 3 rd day	2-4 hours every 2 nd day
	Sandy	1-2 hours every 3 rd day	1-2 hours every 2 nd day	1-2 hours every day
POTS AND BASKETS				
Drippers & Misters	Potting mix	Until moist every 3 rd day	Until moist every 2 nd day	Until moist every day
Drip				
Spray				

Water saving tips

Water at the right time

Watering your garden in the early morning or evening reduces water loss through evaporation. Don't water if it's too windy, or use a Dripper System in windy areas.

Choose the right plants

Local native varieties and other water-wise plants attract wildlife and need less maintenance and watering.

Mulch gardens to lock in the moisture

As well as reducing evaporation and water run-off, a good quality mulch will also provide nutrients to the plants and restrict weed growth.

Water deeply when your lawn needs it

If your lawn springs back after stepping on it, it doesn't require watering. When you do water, a good soaking every now and then is preferable to frequent, light watering. Thorough watering encourages deeper roots, giving you a stronger, more drought resistant lawn.

Show on the plan:

- Fence & boundaries
- House outline
- Driveways
- Paving
- Pergola
- Garden areas
- Lawn areas
- Garden taps

SCALE: One small square = meters **neta**

