



Riverlink Water Use Efficiency Checklist for Horticulture

(based on the Rural Solutions SA Checklist)

This Drought Strategy Checklist for Horticulture consists of a series of questions, the answers of which may help growers manage their properties during periods of reduced water allocations. Most of the answers to these questions will be related to your specific crop, property and circumstances. This list, while not exhaustive, may help you identify your need to obtain more information from the Riverlink agencies (CSIRO, Department of Agriculture NSW, Department of Primary Industries Vic or PIRSA).



Property Plan

Do you have a property plan or aerial photo*?

Are all crop types and varieties clearly identified on the aerial photo?

Have you calculated the area of each crop type in hectares?

Do you know your plantings' variety, age, rootstocks?

Has your property had a soil survey?

Have you identified the different soil types on your property?

Do you know how much water each soil type holds (Readily Available Water RAW)?

Have you identified the rootzone depths of your crops by patch?
Do you know how much water it normally takes to fill your entire root zone?

Water

Do you know how much your latest allocation is in megalitres?

Have you compared your latest allocation with water use over previous years?

Do you know how much water your crops normally require?

Have you compared this figure with your latest allocation?

Crop water requirements

Do you know the critical growth stages for all your crops and when irrigation is critical to maximise yield and quality?

Do you know when you can reduce irrigation for your crops and have minimal effect on yield and quality?

How much additional water above your current allocation will you need?

| Yes | No | More information needed | N/A |
|-----|----|-------------------------|-----|
|-----|----|-------------------------|-----|

* maybe obtained for Sunraysia from SunLIS at a charge





Irrigation System

Do you know the application rate (in mm/h) for your irrigation system?

Yes No More information needed N/A

Do you know the application efficiency of your system?

Have you considered a system check?

Do you know how to do a DIY system check?

Do you have any leaky valves or lines that need repair?

Irrigation Monitoring

Do you know how to read your water meter?

Are you recording your meter reading after each irrigation shift?

Do you regularly monitor your soil water content?

Do you have soil water monitoring equipment?

Should you adjust the refill point(s)?

Do you need to irrigate the entire root zones?

Have you considered only irrigating the major part of the root zone?

Do you know the current soil salinity level within your crops?

Have you collected soil salinity samples?

Do you know how to collect a soil salinity sample?

Do you know the critical soil salinity value for your crops?

Canopy Management

Should you reduce your canopy size and if so by how much?

Should you reduce fertilisation to avoid excessive vigour and if so by how much?

Should you thin fruit and if so by how much?

Water Saving Strategies






Will you implement full cover weed control?

Have you thought about mulching the wetted strip?

Can you irrigate at night?

Can you avoid irrigating in windy conditions?

Should you change your irrigation interval (to reduce surface evaporation)?

|  | | Yes | No | More information needed | N/A |
|---|---|--------------------------|--------------------------|--------------------------|--------------------------|
| | Will you stop irrigating windbreaks? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| | Will you rip the strip next to native vegetation on your land? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
|  | Could you delay your property redevelopment and leave vacant areas? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| | Should you stop irrigating some varieties of low financial return to save water? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| | Customers | | | | |
| | Do you need to consult winery/packing shed on varietal preference? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
|  | Do you have to meet strict contracts for the supply of your product? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| | Will the market you usually supply accept a lower standard of your product? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| | Is keeping your markets supplied very important to your medium-long term survival (i.e. if you don't supply your market next season, will that market outlet be still available?) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| | Financial | | | | |
|  | Have you calculated the gross margin per hectare for all your crops and varieties? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| | Have you calculated the \$/megalitre return of each crop you have? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| | Are you considering leasing or buying water in, or selling your extra water? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| | Do you know what the procedures are for leasing or buying water? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| | Have you calculated the cost/benefit of obtaining additional water? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
|  | NOW | | | | |
| | Have you developed a monthly water budget to maximise your return for your available water? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |