FACT SHEET

BORE WATER TEST BUNDLE

What is bore water?

Bore water is groundwater that has been accessed by drilling a bore into underground water storages called aquifers. An aquifer is formed when water from rain and rivers seeps through layers of soil and rock and fills spaces or fractures within layers of sand and fractured rock.

Bore water may be suitable for uses including stock watering, irrigation, flushing toilets and washing clothes or cars. It may even be suitable for showering, food preparation and drinking. However, bore water can become contaminated by natural processes and human activities. Testing by an accredited laboratory is required to confirm the quality of the water, which may require treatment, depending on its intended use.

If your bore water is required for human consumption, you should have it tested at least once a year for chemical content and microbiological contamination.
(Please ask for the Winechek Drinking Water Fact Sheet.)

Is my bore water suitable for watering?

There are two important chemical parameters that should be tested before using bore water – pH and Salinity. Winechek offers a *Bore Water testing bundle for $33 (including GST) per sample.*

pH

Measurement of pH is one of the most important and frequently used tests in water chemistry.
It indicates if the water is alkaline (pH>7), neutral (7) or acid (<7). For irrigation purposes, pH 5.5 to 8.5 is suitable for most plants.

Salinity

Salinity indicates the amount of dissolved salts expressed as mg/L (milligrams per litre).
Different plants can tolerate different levels of salinity in water, but can also be influenced by soil type and characteristics.

Bore water that is very acidic can be highly corrosive, whilst if it is highly alkaline (hardness caused by calcium and magnesium salts), crusts may form on bore pipes and fittings. Salinity measuring more than 1000mg/L may cause scaling and corrosion on bore pipes and fittings and leaf burn on plants.

Collecting your water sample

- If not using the sample bottle provided by Winechek, ensure that your collecting container is very clean and dry.
- Choose a sample which is representative of the body of water being considered. It needs to be a sample which is most like the water you want to get information about. Try not to take your sample too close to the surface, bottom or sides of the water source.
- Bores can be tested at the trough. However, the water should be freshly pumped. The salinity of water sitting in an unused trough may be higher than the actual groundwater salinity level due to concentration of the salts through evaporation.
- Rinse the container two or three times with some of the water to be sampled.
- Collect the sample and fill container completely so there is no air pocket.
- Secure the lid firmly and deliver to laboratory ASAP.
- Do not freeze or allow the sample to become too warm.

Easy Test Sampling Packs

To assist you to collect your water samples, pick up a FREE Easy Test Sampling Pack from your nearest laboratory.
The Easy Test Pack provides:

- Sample container
- Labels

- Factsheet

Salinity Range (mg/L)	Guide to usefulness for irrigation
0-500 mg/L	Generally good for irrigation
500-1500 mg/L	Consider tolerance of plants, soil type, ensure good drainage
1500-6400 mg/L	Not normally suitable for irrigation, only use for very tolerant plants with good management techniques
>6400 mg/L	Not suitable for irrigation

The following table provides an indication of the salinity tolerance of groups of plants:

SALINITY CHART

Range of salinity of natural waters shown below:

Sea water	35000 -	40000	mg/L
Rain/snow	3 -	60	mg/L
Fresh water lake	20 -	1000	mg/L
Fresh underground water	100 -	1000	mg/L
Saline underground water	1000 -	350000	mg/L

(Note – The division between fresh and saline water is arbitrarily taken as 1000mg/L)

Garden Plants Maximum Recommended Salinity (mg/L)
The following table is a *guide* to the salt tolerance of various garden plants, growing under average conditions of soil types and drainage

0 - 700 mg/L		700 - 1500 mg/L		1500 - 3000 mg/L	
Stone fruits	Flowering annuals	Celery	Geranium	Fig	Chrysanthemum
Citrus	Bulbs	Grapes	Roses	Olive	Hibiscus
French Beans	Camellia	Apples/pears	Bougainvillea	Asparagus	Oleander
Strawberries	Azalea	Cabbage	Pomegranate	Beetroot	Bamboo
Avocado	Begonia	Lettuce		Spinach	Ornamental palms
Peas		Tomato		Rosemary	Australian Native species
		Potato			
		Pumpkin			
Avoid wetting leaves in hot, dry days		Avoid light, frequent watering and wetting leaves during daytime		Avoid wetting leaves	

Irrigated Pastures Maximum Recommended Salinity (mg/L)

A guide to salinity tolerance of irrigated pastures is shown in table below

1000 mg/L	2000 mg/L	3000mg/L
Subterranean clover White clover	Strawberry clover Perennial rye Fodder crops	Rhodes grass Lucerne Prairie grass