

Factsheet 3: Water, Infrastructure, Trees



These fact sheets contain information shared through discussions with 20 Hawke's Bay farmers during the 2008/09 season.

WATER

"Water is paramount. I'm in the process of putting in a big water scheme as a backstop."

"The way we think about water is completely different to the past. Good water is critical."

Responses

- Most farmers are acting, or have acted, to both secure and improve their water supply.

Availability and location of on-farm water, and topography, are factors that influence the extent of water reticulation.

Most have either a fully reticulated supply or a mix of reticulated water and dams.

A few are totally reliant on dams and creeks for a variety of reasons.

- In different parts of the region there are observations of lower spring and creek recharge in recent dry years, while in other localities no major changes have been noted.

Informal ways of monitoring water/moisture levels include: a drought puddle, digging with a spade, observation of creeks and springs.

- Most farmers are interested in, or are looking at, soil management techniques (e.g. biological farming) to improve soil moisture holding capacity.
- There is scepticism regarding irrigation of pasture, while some see it as an option.

The future

"The creek is drying up more regularly these days."

Ensuring secure water supplies for the future is a key issue for all farmers. Increasing numbers are acting now to secure water for the future. Future rainfall changes are uncertain, but current information suggests that conditions could become drier on average. There is a need for detailed regional monitoring of soil moisture levels under different soil management systems.



INFRASTRUCTURE

Responses

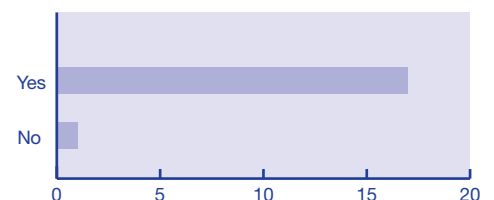
- While wind is a major factor in drought, there appears to be relatively little use of shelterbelt systems to mitigate wind-run. Benefits of shelter include:
 - altered microclimates
 - reduced evapotranspiration
 - generally increased yield
 - less feed required to maintain physical condition of stock
 - improved shade for stock
- Tracks and culverts are a major issue for those on steeper country.
- Awareness of culvert size is becoming more obvious; but only a minority of farmers are proactively upgrading for the next big storm event.
- Drainage is an issue for some.
- There is growing awareness of the benefits of fencing gullies and waterways and riparian plantings. Cost is a major inhibitor for some, while others recognize the benefits and are willing to make the investment in:
 - erosion protection
 - reduced stock losses
 - reduced flood risk downstream
 - improved water quality
 - biodiversity enhancement

The future

“I work on the assumption that our weather events are going to get more dramatic, we’re going to have more droughts, we’re going to have more weather bombs.”

It’s human nature to deal with what’s happening in the present, but the future will inevitably bring more droughts as well as intense rainfall events. And these could become more extreme over time with climate change. A well-planned proactive approach with infrastructure will yield benefits over time and help reduce costs associated with future weather extremes.

Are you actively fencing & planting waterways?





TREES

“Trees provide protection systems.”

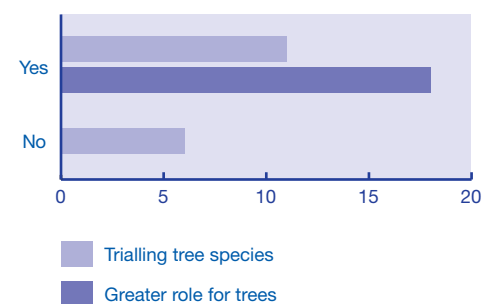
Responses

- Farmers increasingly recognise the benefits of planting trees on farms, especially for the protection of waterways and erosion control.
- Those with indigenous remnants on their property are protecting them, predominantly through the QEII Trust.
- A number of those who have established poplar and willow trees view them as important stock fodder in a drought.
- Different “outside the square” options are being explored including: managing kanuka trees for erosion control and shade; two-tier farming trials; organic fruit growing; on-farm tree selection and experimentation for shade and fodder.
- There is low interest in carbon farming.
- There is a wide range of views regarding planting programmes. Views range from “will only do it when finances allow,” through “we have a programme and will carry it through in some form,” to “just borrow the money and get the job done, the benefits are worth it”

The future

There is a strong view that there will be a greater role for trees in the future. Trees provide multiple benefits. With climate change in mind they can help buffer against extremes of wet and dry, they provide shelter and shade, and of course they store carbon.

Are you trialling different tree species & do you see a greater role for trees in the future?





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