

Native fish on the farm

GOOD FARM STEWARDSHIP IS ABOUT MAKING SURE YOUR FARM IS HANDED ON IN AS GOOD OR BETTER SHAPE THAN YOU RECEIVED IT. THE SAME GOES FOR THE WATER THAT FLOWS THROUGH YOUR LAND. LEARN HOW TO KEEP YOUR WATERWAYS HEALTHY FOR THOSE DOWNSTREAM, WHILE BENEFITTING YOUR OWN FARM.

*A well planted farm stream, Raglan.
Photo: Monica Peters,
NZ Landcare Trust*



*Banded kokopu
Photo: Stephen Moore,
Landcare Research*

What's good for the farm is good for fish

A farm without a stream is like a fish with a bicycle - pretty rare! The network of streams and even drains that cross farmland may be less than pristine, but chances are they still harbour a community of native fish, invertebrates and aquatic plants. Coastal farm streams may be a nursery for the local whitebait run, while high country sheep farms could harbour a rare mudfish or two.

Keeping your streams well-shaded, free from stock trampling, effluent, and silt, while ensuring culverts are fish-friendly will give native fish the best chance of surviving on your farm. Like the miners canary, the types of fish and invertebrates that live on your farm are a great indicator of healthy water and good farm stewardship.

- Don't watch your farm go down the drain. Planting up steep slopes, gullies and stream banks will reduce soil erosion off the farm and keep silt out of the water.
- Healthy water, healthy stock. Excess nutrients from fertilisers and effluent, coupled with hot weather and un-shaded streams, fuels algal blooms that can be fatal to humans, dogs and livestock. Prevent algae growth by fencing and planting waterways to cool the water. Where fencing is impractical, install drinking troughs and shade at the top of the paddock to encourage stock away from swamps and streams.
- Mind the spring. Boggy seepages and springs on the farm are an important source of water for streams especially during dry summer months. Instead of draining, fence and plant with native sedges and flax so they form a buffer zone to absorb and slow down runoff after heavy rain.
- Don't drain away your profits. Diggers are expensive. Fencing and planting your drains shades the weeds and keeps silt out, reducing the number of times you need to dig them out.
- Go easy on the N. Retiring eroding hill slopes and boggy areas lets you focus on getting the best production from your best sites. This will cut down on fertiliser use, saving time, money and stream health.

BEFORE: Cows had access to the stream, damaging banks and polluting the water. Photo: Fred Lichtwark, Whaingaroa Harbour Care

AFTER: Stream fenced and planted, troughs provided for stock water. Photo: Fred Lichtwark, Whaingaroa Harbour Care



*Dairy cow and sheep
Photo: Abby Davidson, NZLT*





Fence them out!

Hauling cows out of swamps and waterways on a miserable winter night is no fun in anyone's book, and at up to \$1500 for a good milker losing them is not good for the pocket either. Farmers all around the country are realising good environmental practices, such as fencing off waterways, makes good business sense too. Regional councils, NZ Landcare Trust or Department of Conservation staff can help you put together a planting plan.

Fencing makes good financial sense. Photo: Monica Peters, NZ Landcare Trust



Where no natural riparian vegetation remains, with careful harvesting, stream edge plants can recover quickly. Photo: Robin Black, Hancock Natural Resource Group

Waterway type	Fencing set back from channel
Small farm drains < 2 m wide	1 m, plant east and south sides in lower sedges or leave in rank grass to allow digger or sprayer arms to reach the channel
High flood risk areas or unstable land	Use temporary electric fences just beyond the flood zone, 'go wide' on outside river bends
Small streams (4- 5 m wide) – rolling land	2-3 m for every 100 m of sloping pasture up to the ridge.
Small streams (4- 5 m wide) – steeper land	10-15 m per 100 m of slope
Larger streams/ rivers > 5 m wide	> 5 m, 10-20 m for self-sustaining riparian vegetation

Fish and forestry

- Native fish are found in pine forests because there are long stable periods and good insect food.
- Stable woody debris is essential as is cover for temperature control and shelter after harvesting.
- Fish passage is critical – identify culvert crossings that work well, fix the others.
- Sediment control structures need ongoing maintenance to maintain water quality

Model farm

Scott Farm, just out of Hamilton, showcases a range of waterway management options and solutions that farmers can learn from and ultimately apply to their own farms.

The Scott Farm Riparian Demonstration Site is jointly funded by DairyNZ, the MAF Sustainable Farming Fund, and Environment Waikato. See www.dairynz.co.nz

Retired gully fenced and planted with natives. Photo: Monica Peters, NZLT



Want to know more?

Check out "A Guide to Managing Waterways on Canterbury Farms" Environment Canterbury www.ecan.govt.nz and "Clean Streams" Environment Waikato www.ew.govt.nz

The Farm Environment Award Trust has some great examples of farmers and their "Winning Waterways" www.nzfeatrust.org.nz

If you want to know how you rate on waterway management, check out Dairy NZ's "Farm for Tomorrow: How Do I Rate?" www.dairynz.co.nz

You can find out about "Sustainable Drainage Management" from the NZ Water and Waste Association www.waternz.org.nz

Fishy factsheets in this series:

- #1 Our freshwater fish
- #1 Ngā ika wai māori
- #2 Stream works for fish
- #3 Fixing your stream edges
- #4 Native fish in the city
- #5 Native fish on the farm**
- #6 Caring for our catchments

All factsheets can be downloaded from: www.landcare.org.nz



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