



RESILIENT FARMING SYSTEMS Prepare and Profit

McRae Trust Farm



12 MARCH 2010

Wairoa Hill Country

- Landscape
- Soil Erosion, Drought, Soil Health
- Management options
- Tree Planting Options
 - Multiple Benefits of Trees
- Hill Country Erosion Project (MAF)





- Some properties have over 70%
steep land with erosion risk
- Rainstorms every 5 – 10 years
- Natural fertility (P) and weathers quickly
- Apparent fast recovery from slipping
- But – only 80% after 30 years

Can speed up slip recovery with

- Fertiliser
- Legumes
- Rest

Rest? (Deferred grazing)

Why not make it a regular practise?

- Soil health/Organic matter/nutrient storage
- Drought resilience (bounce back)
- Pasture rooting depth, soil moisture

Other management inputs

- Cattle grazing on wet soils
- Pasture species selection & management
- Balance of livestock (sheep/cattle/goats)



Trees on Pasture

Poplars and Willows

- Simple and effective
- No loss of grazing

Trees on Pasture

Combined Benefits

- Shelter and Shade
- Fodder
- Soil Conservation (topsoil loss, sediment)
- Protect tracks, crossings, dams
- Possible timber
- Carbon (if 30% canopy cover)



Trees on Pasture

Other Species

- Robinia (pseudo-acacia)
- Peppermint gums
- Fodder shrubs





Forest Options

- Timber
- Timber + Carbon
- Reversion (+ Carbon)
 - Add faster growing exotic species





Hill Country Erosion Project (HCE)

MAF Funded Scheme/HBRC

- Runs to the end of 2012
- Working with landowners in:
 - Ruakituri Valley
 - Nuhaka/Kopuawhara
 - Whakaki Catchment

Hill Country Erosion Project (HCE)

- Land Management Advisor (Nic Caviale)
- Part time Facilitator (John Ross)
 - Discuss land management issues
 - Farmer lead trials/field days/info
 - Farm Plans/pole planting/Forestry

Hill Country Erosion Project (HCE)

‘Innovation on the ground’

- Trials Underway:
 - Dealing with old poplars
 - Fodder shrubs
 - Pasture species

Hill Country Erosion Project (HCE)

‘Innovation on the ground’

- Trials in the Pipeline:
 - Faster recovery of slips
 - Growth control of poplars
 - Other pasture-friendly trees
 - Kikuyu control











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