



The BHU Future Farming Centre
Permanent Agriculture and Horticulture
Science and Extension

Notes on species for flooded soil remediation

Thoughts from Dr Charles Merfield, BHU Lincoln, Canterbury

On the “What to plant if you have a fresh layer of silt” question. A few ideas

- Seed that is cheap and available (incl. from South Island) so that is mostly going to be pasture and fodder crops
- Need legumes in the mix to fix N as available N in the silt is a bit of an unknown. Need to think about if inoculants are needed, even for white clover as the silt may have very low symbionts in it.
- Need grasses to hold things together
- Some things with deeper roots to draw water out of deeper down and get O₂ downstairs as well. Sun flowers come to mind.
- Need to tolerate wet feet / low soil oxygen levels (so lucerne is out unless soil is free draining)
- Probably tending towards annuals as are quicker growing, bigger seeds so will handle poor sowing conditions better, and, they can be got rid of again without much aggro when the shit has settled and people start to figure out what their future looks like.

But to me the key thing is **the exact species are not critical, as long as there are a few in the mix and they get on soon** to protect the silt from further erosion both water and wind, and getting airborne as it starts drying.

We want to start turning it into topsoil as soon as possible!

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