

Summer storms; is it your turn?

History shows us large storm events occur in late summer - early autumn every year, somewhere. So just how set up is your farm? Could it cope with the storms that smashed around the Bay of Plenty 05, Manawatu/Wanganui Feb 04? It's not just the large storms that have an impact, but concentrated rain cells can move through sub-catchments, smashing some farms and not others.

Everyone has a culvert that needs sorting, or a track that needs some attention. But have you asked yourself what the production cost is of not using a track for a couple of months is if you don't do something about it? Let alone the additional cost to get the contractor in to fix it.

Every farmer should have a short term and long term plan for storm proofing their property. The short term stuff, like storm water control, will have immediate positive impacts for the '06 event whilst the long term actions, like tree plantings, will protect the property into the future. A small annual investment for storm proofing your property will save you thousands in lost infrastructure and production when the mother of all storms hits your place.

Short term considerations include:

Storm water maintenance on tracks: Track failure, washouts and dropouts often occurs from inadequate storm water control. Maintain track integrity by placing cutoffs at regular intervals. The discharge should be onto stable ground and not fill material or wet spring areas that may fail in the future. These areas can be armored with trees for added stability.

Dam walls and spillways: Can you afford to lose your dam? Most dam failures occur due to improper construction of the dam wall, or inadequate maintenance of the spillway. Ensure that the spillway has been placed on stable ground and grassed to prevent scouring.

Tree maintenance: Trees planted for erosion control have a certain lifespan, and like a fence need ongoing maintenance. Form pruning and removing double leaders will help tree growth, reduce windthrow and extend the life of the tree. Poplars and willows have a useful lifespan of 30-50 years, where others such as oaks can be 200 years. If you are not keen on maintenance and replacement, consider longer living species in your planting program.

Long term considerations:

Risk Assessment: Consider your farm assets and infrastructure objectively. What is most at risk? The biggest impact from a storm is not the erosion scar itself, but the track, fence or building damaged by the debris trail. Prioritize your storm proofing program. Erosion control works should be protecting tracks and infrastructure first, and then dealing with the other areas. Land that has the potential for severe erosion, space planted trees will not solve the problem. You need to seriously consider afforestation or retirement. Remember, the golden rule for tree planting is to match the tree type to the site conditions and what you want to achieve from the tree.

New tracking, fencing and dams: Tracking placement on a hill slope is an important consideration. Avoid mid-slope tracking where possible or if you can't, ensure it is on the sunny face and you stabilize it with trees. Putting the trees in several years prior to forming the track will ensure they have some holding capacity when you need it. Also avoid crossing steep gradient watercourses (tend to gully), swampy depressions or rushes (potential slip areas), and areas with signs of historical erosion.

Similarly, when developing new fence lines consider their placement and whether the fence is at risk from erosion and the debris trails.

When putting in dams for water supply, ensure they are located on stable ground and not sited where they will feed slip failure zones.

Watercourses: Flooding watercourses provide both a hazard to stock and a risk to productive flats. Use trees to amour sharp bends that are actively eroding.

Wetlands and swampy gullies play an important role on your property. They are nature's sponge, capturing large amounts of water in a storm event and slowly releasing it over a longer period of time. They also trap nutrient runoff. Large volumes of water running down gullies, through culverts and into streams put a large amount of pressure on property infrastructure.

Shelter: Consider different paddocks and the weather that they are exposed to. If you wouldn't stand outside in T-shirt on a stormy night, why should your stock be out there with no shelter? A management strategy for sheltered areas on the farm for stock is important. Poplar pole planting, woodlots and shelterbelts all provide some level of comfort in a storm event. In addition these plantings can provide erosion control, a valued timber resource and a habitat for native wildlife.

Most importantly, always match your land use to the type of land most suited.

So the next quiet day, take the time to sit down and consider your property. Work out the long term requirements for storm proofing your property and prioritize them. You also need to determine what you can do now that will have an immediate impact. After making a plan, get out there and implement it! It's not a matter of 'if' the next storm arrives; it's a matter of 'when'. Are you and your farm ready?