

TOP TIPS FOR WINTER CROP Paddock SELECTION

Summary

- 1 Steeper paddocks come with bigger risks
- 2 Consider proximity to waterways and gullies, and inundation during a flood
- 3 Soil type can impact productivity, nutrient loss and animal welfare
- 4 Other factors such as class of stock, animal welfare, access, biosecurity and catch crops should be planned for

Which paddock should I use for winter crop?

Pasture renewal shouldn't be top priority when selecting a winter crop paddock. Other factors to consider should include: reducing the risk of contaminant loss, maintaining animal welfare standards, and complying with regulations.

Grazing tip: Use lighter stock classes in areas with greater risk of soil, phosphorus or nitrogen loss.

Higher risk paddocks = graze sheep or 1-year-old cattle.

Lower risk paddocks = ok to graze older cattle and deer.

Keep this in mind for paddock selection—do you have some low-risk paddocks to graze your heavier cattle on?

1 Steeper paddocks come with bigger risks

- Increasing slope increases the risk of losing valuable top soil. Think about slope in relation to establishment methods, how the paddock will be grazed and what animals will be grazing it. If it is too steep for a tractor, then it might be too steep to intensively winter graze cattle on. Remember, its best to graze from the top down.
- When sowing the paddock, try to sow across the hill when it is safe to do so. These rows will act as mini buffers catching soil when it travels down the hill.
- You will need to apply for consent if your paddock's average slope is more than 10 degrees or you don't have a certified freshwater farm plan.



2 Consider proximity to waterways and gullies, and propensity to flood

- Proximity to waterways or direct channels to waterways—if you are going to intensively graze the paddock over winter then think carefully about whether a paddock next to a waterway is a good option for a winter crop—if you have no choice make sure you leave an uncultivated buffer of at least 5m next to the waterway for flat paddocks and that the stock are excluded from this buffer area. The buffer width will need to increase with increasing slope.
- If the waterway has a formed bed, stock will need to be excluded from these areas by at least 5m.
- Critical Source Areas (CSAs)—these are the areas in the paddock that will be a high risk for channeling nutrients, soil and fecal matter into waterways. Areas such as gullies, those with surface ponding in winter, and ephemeral streams should be left uncropped and ungrazed so they are left as grass buffer zones.
- Consider placing sediment traps in CSAs, at tile or pipe outlets, or near streams as these can be very effective at capturing sediment. To be most effective they must: exclude stock, have soil cover (e.g. be grassed), slow the flow of water so that the sediment can settle out, and be emptied on a regular basis.

3 Soil type can impact productivity, nutrient loss, animal welfare, and regulatory requirements

- Soil type—generally, heavier soils and those with drainage impediments are more prone to pugging, P loss, and soil loss (particularly when combined with slope). Stony soils are less prone to pugging and the risk of overland flow but have higher risk of nitrogen loss. Soils prone to pugging will likely have a lower risk of nitrogen loss but increased risk of longer term soil damage and impact on subsequent production.
- Soil fertility—soil test before selecting the paddock and deciding on crop type or fertilizer application. Optimal applications of fertilizer reduce the risk of nutrient loss. A nutrient budget (OverseerFM) will help highlight potential nutrient losses from different crop types and fertilizer applications.
- Apply for consent if, your pugging is greater than 20cm depth (except near fixed structures e.g. water troughs or gateways) or if pugging deeper than 5cm covers more than 50% of the paddock.



4 Planning should include other factors such as class of stock, animal welfare, catch crops, biosecurity, and access to the paddock during grazing

- **Animal welfare** considerations include:
 - a. Carefully planning feed management so that animals are well fed on high quality fodder.
 - b. The paddock is large enough and suitable to feed the intended number of animals for the intended period of time.
 - c. There is easy access to the animals in case they need help or moving to handling facility.
 - d. When thinking about the best way to graze the paddock consider shelter (which may be topography as well as vegetation), access to water, location of water troughs, and loafing areas.

- e. Quality and quantity of water is important for welfare and productivity. Stock can become stressed by water shortages. Make sure your troughs have enough capacity for several animals to be drinking at once. Do you need to purchase some portable troughs so that you can graze from the top of the paddock down?
 - f. Ensure that animals have access to loafing areas where they can lie down and rest out of mud, such as grassed areas in a paddock or nearby runoff areas.
 - g. The distance animals have to walk to water or feed supplements.
 - h. Make sure that stock are healthy and safe and get treatment for any animals that require it.
- **Consider catch crop** options when sowing or choosing paddocks. The sooner you can get something growing after the main crop, the less chance of losing nutrients or soil—think about what the options are for establishing a quick growing pasture or crop after winter that might also give you summer feed or finishing options.
 - **Aspect**—consider how aspect affects risks. South-facing paddocks that are slower to dry out may be at more risk of pugging than north-facing paddocks.
 - **Biosecurity**—diseases such as *M. bovis* may require isolation of mobs between or within farms. Can you keep space between mobs if needed? Either with an ungrazed paddock or with hotwires?
 - **Accessibility**—consider vehicle access. Heavy tractors can also cause sediment loss and soil damage when its wet. Laying out balage in the crop prior to winter will reduce this impact.

B+LNZ RESOURCES

 www.knowledgehub.co.nz
www.beeflambnz.com/wintergrazing

Further reading to download:

- [Winter forage crops: Management before grazing](#)
- [Ten top tips for winter grazing crops](#)

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