

Managing Stressed Stock

Large scale disasters can come in many forms however their effects on livestock are often very similar. Here are some general precautions which apply to most situations.

The effects on livestock will also be dictated by:

- time of year
- prior condition of livestock
- stage of pregnancy
- age of stock.

Priorities

- **Safety of humans and stock** - In cases of flooding move stock to higher ground
- **Clean water** - This is an essential item. Water heavily contaminated with ash or silt is not suitable, especially if stock are grazing silted/ashed pasture and/or eating feed of dubious quality. Remember that troughs that have been contaminated will need draining and cleaning out properly
- **Feed** - Pastures contaminated with silt/ash will have reduced palatability
- **Physical** - depending on particle size, origin, hardness of silt particles and quantity consumed they can act like sandpaper against the rumen wall. Particles can also block up 2nd and 3rd stomachs leading to ketosis, lack of appetite and scouring. Provide plenty of good water and energy to prevent ketosis
- **Chemical toxicity** - possible if contaminants in silt/ash - hard to identify or quantify. Good water and good rumen function hopefully avoids problems
- **Infectious problems** - mainly bacterial. Soil may contain clostridia spores and sewage and effluent contamination may lead to gut diseases such as Salmonella
- **Feed value issues** - poor energy and nutrient intake, cow dry matter intake poor rumen function, acidosis and ketosis. Direct impact of silt or other nutrients, such as reducing iron and copper uptake.
- Increased risk of mastitis from environmental bacteria eg. E.coli
- Dead animals in silt e.g. rats etc

Pasture damage effects on stock

- **Flooded and silted but little or no ponding.**
 - Pasture is green and growing but with some contamination
 - Pre-graze top if weather is suitable

- Provides increased intake, increased bite rate, possibly more time for cows to lie down - important in stressed cows, especially with soft or tender feet
- Get rid of rubbish grass and sets paddock up for re-growth next rotation
- **Pasture brown and dying but dry grass predominates**
 - Some green, some rotting ie roots may still be alive
 - In winter pasture is likely to survive submersion for long periods - up to 2 weeks even
 - Graze as above
 - This is low energy grass that needs compensation but is still useful for bulk dry matter and fibre
- **Predominantly slimy rotting grass, plant is dying.**
 - Don't graze as this is poor feed quality and can depress rumen function
 - No real effective fibre
- **Buried in silt**
 - no use what so ever.

If ash cover is your issue:

- Physical presence of ash will decrease palatability and blown dust many cause respiratory problems. Grass will grow through 15mm of ash
- Pasture will have a strong smell due to sulphur dioxide. This will increase acidity of pasture
- Ash in water will increase acidity and occasionally will be toxic if fluoride concentrations are high. More of a problem in puddles but also water troughs.

Health issues

Clean water and adequate feed and energy supplies are the priorities for stock in disaster situations.

Potential health problems

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Associated issues with disasters

- Ensure magnesium levels are kept up to scratch
- Extra walking or wet condition will increase lameness cases
- Transporting of stock and mixing with new herds is very stressful from a physical and social point of view. Good feeding, watering and magnesium levels help. Also calcium if cows have recently calved. An energy drench before and after is likely to help. The after effects of long distance transport are detectable for up to 2 weeks
- Reduce stocking rate - removing animals and once a day milking are all options. Concentrate on smaller numbers and do them better.

Changing feeds

Floods and heavy snow will mean that cows will have limited or no access to pasture. They will be hungry and will try to eat as much as possible of whatever you give to them.

Beware of introducing a different feed type too quickly. Changing from mainly pasture to high carbohydrate supplements like tapioca, vegetables, cereals or kiwifruit, can cause rapid changes in rumen fermentation and there is a risk of developing acidosis, sometimes called "grain overload", which can kill cows.

Slowly introduce similar feeds first

If your herd was on pasture, introduce pasture-based supplements first - hay, grass silage.

Gradually add others

Start with 2-3kg of grain or other supplement per day and very gradually increase the amount as necessary over at least two weeks. Alternatively, start the herd on 4-5kg of brassica crop per day given in small breaks so that they eat little and often. It may be possible to graze deteriorating (but not rotting) pastures after flood waters or snow disappear, and this will allow quicker regrowth while providing some dilution of high carbohydrate supplements.

Low risk feeds include:

- Hay
- PKE

High risk feeds include:

- Kiwi Fruit
- Molasses
- Vegetable starches (tapioca, potatoes, carrots)
- Wheat
- Barley
- Oats
- Maize
- Sorghum
- Silages (some fibre present)
- Broll

Prevent metabolic issues

Keep up magnesium supplementation to ALL cows. Magnesium is especially important early in lactation when cows are vulnerable to ketosis, particularly if they are underfed. As cows may be drinking surface water rather than trough water, use an additional method to in-water application e.g. dusting. Consider supplementing your MILKING cows with calcium (lime flour).