

Making Silage in Rainy Weather!

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“Great year for grass growth, a shocker for making silage!” says Frank Mickan, Pasture and Fodder Conservation Specialist, DEPI, Ellinbank. This silage season has turned into a difficult one to successfully harvest without rain damage! However delaying cutting too long will result in poor quality silage even if undamaged by rain. Cutting early with some rain damage will still result in a silage of better quality than that cut later. Digestibility is dropping about 3 – 5 percentage units per 7 – 10 days now, and protein dropping 1 – 3 units.

The aim is to put chopped stack silage in at about 28 – 35% dry matter content versus 40 – 55% DM) for baled silage. If not the silage will undergo a less desirable fermentation, be of lower quality and be less palatable.

The longer a mown crop is on the ground, and/or the more rain that falls on it, the greater are the dry matter and quality (energy and protein) losses from plant respiration, microbial and bacterial caused losses, leaching losses and some possible leaf shatter.

Let’s look at some scenarios of wet weather and some possible actions to consider.

Short periods of drying weather

Try to beg, borrow or steal a tedder, tedder rake and/or mow with a mower conditioner all of which will speed up the rate of wilting substantially and possibly beat the rain. The more widely spread and thinner the windrow the quicker the wilting. Ted 2 – 3 times if the weather suits. Definitely spread (ted) straight after mowing! Respread after most of the dew has lifted the next morning by whatever sun there is as it amounts to about 1.00 to 2.5 tonnes/ha of water.

For those farmers who have access to a mower conditioner, leave the swathe boards as wide as possible to produce the thinner, wider, and quicker drying windrows. The tynd types of conditioners are more suited for pastures than the roller types although the latter are still most suitable for thicker stemmed crops such as summer forages and cereals.

Crop has been cut and rain is threatening

If rain is threatening by late on day 2 or during day 3 after mowing, and the desired amount of wilting had not been achieved, “Go for it!” You’ll never reliably predict the amount or duration of the approaching rain so if you wait, Murphy’s Law says “It will pour rain.” Forage which is ensiled too wet after laying on the ground for days on end will, at best, have very poor fermentation due to lack of sugars for the ensiling bacteria to convert to acid which “pickles” the grass to become silage. At worst, the material may not be much better than compost, the probable outcome if it does pour! There will be some effluent produced which must not enter waterways.

Rain has started during harvesting

a) Forage harvesting: Stop harvesting if mud is being carried onto the stack as this will result in a very poor quality fermentation in the silage. If you are fortunate enough to have a heavily wilted crop a small amount of rain will not be too detrimental. If water is obviously

oozing out of the material being rolled in the stack it is advisable to stop harvesting. A plastic cover should be placed over the stack and well weighted to preserve the good quality that has so far been ensiled. If there is likely to be a lot of rain over several days consider strongly the complete sealing of that stack. The remaining crop, now to be a very poor quality material due to the weather, should be stored in a separate stack/pit from the original better quality stack.

b) Baling: Stop when the material continually wraps around the lower rollers or when the extra weight of the bales causes undue stress on the baler and/or wrapper. Wet and heavy bales are difficult to wrap and/or move around with small tractors. Heavy rain may effect the seal between the plastic layers, so if possible, cart the bales to a covered area (eg. Tarpred area), and wrap the bales out of the rain. Wrapping bales which were baled before rain arrived and have subsequently become wet will lose minimal quality.

Mown swath receiving a lot of rain

Swear a lot and then be comforted (slightly) by the fact that this heavy rain will result in a lot of good quality regrowth.

Mown pasture laying on the ground and receiving several days rain will continue to decrease in quantity, quality and palatability. At the same time the number of undesirable bacteria, moulds, fungi and yeasts in the windrows will be building up at an ever increasing rate. If possible it may be advantageous to spread the wet material after 3-4 days on the ground, especially before it begins to become slimy and yellow, then black, underneath. Do this even if drying weather is some way off. This operation may, when the grass is finally ensiled, prevent or reduce an undesirable fermentation.

When the weather clears and the top of the swath or windrow is dry of loose water, spread the material with a tedder. If the grass was well wilted before the rain dropped, it will redry very quickly.

Material has been on the ground for a week. Do I still make silage or hay?

Early season grass will be initially high in energy (sugars) which is what the silage making bacteria love and need. With mown crop being on the ground so long will reduce the amount of fermentable substrate substantially so reducing the likelihood of a desirable fermentation.

However this problem is worse with later cut material. If there is little chance of making it as hay, and the wet ground will generally dictate this, then the only options are to:

- a) try to make silage, possibly adding an inoculant to supply extra bacteria of the right kind. How well the inoculant will work will depend on the degree of damage, degree of wilting, how much and how well the inoculant is mixed in, etc. so no guarantees on this working well or getting all your money back.
- b) Consider feeding to grazing stock, but start with a small block initially till the animals learn what is going on, and expect a decrease in production. If the forage wilts quickly and well increased intakes may reduce this effect. At least this option guarantees most of the material is used and reduces the chance of it becoming compost if ensiled, as may be the case if badly affected material.