

ALTERNATIVE FORAGE SOURCES and their suitability for use during drought

As the drought has set in we have seen plenty of alternative forage sources on the market being sold as suitable for "drought feeding". What are regarded as normal hay and straw crops have escalated in price to such an extent that farmers have been reduced to considering unusual crops as a forage option for hungry animals. This article aims to give a run down on some of the most common ones, and to give some pointers as to what you should watch out for when purchasing some of these feed types.

Much of the feed that has come on the market is from failed crops that have been harvested early in the attempt by the cropper to make some minimal return from his investment. Canola Hay, Pea Hay, Wheaten Hay etc are all good examples of these.

One of the main concerns with sourcing alternative forages is ensuring compliance with any meat market standards in programs that you are involved in. The Australian Lamb and beef markets trade heavily on the back of our clean green image and it is important to maintain this even during difficult times such as we are now experiencing. Supplier declaration forms must accompany all feed sources, in order to ensure that meat for human consumption doesn't have unacceptable levels of chemical residues. Always ask your supplier re chemical history of both the crop, and the paddocks it has been grown in, and if there were any risks of spray drift from nearby crops. It is important not to undo years of hard work in building up consumer confidence.

Nitrate toxicity is a high risk this year with all forages, as they will all have been drought stressed. Watch animals for signs that include staggering, rapid pulse, laboured breathing, and frequent urination. Their blood will be chocolate brown in colour. Many animals will recover – some will not. Pregnant animals may abort.

Canola Hay

This tends to only surface in drought – and has been plentiful this year. The failed Canola crop gets bailed up and sold as a "high protein" forage source. It is a good source of fibre, however results are variable in protein digestibility and energy.

The major concerns with feeding out Canola hay include – close monitoring for any mould that can appear & also alkaloid poisoning. Many contractors prefer a light dew prior to bailing to maximize bale quality, so this can cause mould and toxicity problems. Monitor each bale closely for any issues.

The best way to feed it is 50:50 in conjunction with a second forage source such as wheaten hay, which will minimize any risks. In a good year animals will generally refuse Canola hay – but palatability becomes relative in a drought such as this!

Canola Silage

Canola silage tends to have poor intake characteristics and also a high likelihood of mould – so again aim to perform visual assessment of the forage prior to purchase. The best intakes are achieved when fed 50:50 in conjunction with another forage type.

Wheaten / Barley / Triticale / Oaten Hay

There has been quite a bit of this around this season and most of it has tested very well. Problems that can be associated with these included awns on the grain which can cause swallowing problems for animals. In extreme cases this can lead to woody tongue developing, but most animals appear to be able to deal with the grains. The younger hay seems to analyse better and bale better.

These do however seem to be the safest options relative to many of the other forages out there. They are less likely to have chemical residue issues also. They certainly provide an excellent quality fibre source and quite good energy and protein - even if they are not always high in these.

Pea Hay

Again typical of a drought season – there have been many pea / lupin crops that have been harvested as hay. Nitrates can be a very real issue with these crops and can lead to lupinosis. Jaundice is one of the first signs of a problem. The affected animal may develop patches of "photosensitized skin" (generally around the nose and eyes) which is a reaction to a fungus found on the plants, which produces a heptatoxin. Liver damage results and in extreme cases the onset of death can be quite quick. Sheep are particularly sensitive to this problem – which can also occur in strip grazed lupin crops during normal times. Affected lactating animals will often show signs on their udders.

Again care is urged with using this feed – feed in conjunction with a good quality cereal hay / straw to minimize risks.

Sugar Cane Hay

This is a very high fibre feed source. Often there are problems obtaining vendor declaration forms given the high amount of chemicals that are used.

Grape Marc

This tends to be every variable in quality and generally has high incidences of mould particularly botrytis. Vendor Declarations tend to be the stumbling block here again.

Rice Hay

After the rice has been harvested many growers bale this and sell in field. It is high in fibre and low in digestibility, protein, and energy. But like many others if fed in conjunction with good quality cereal hay will work well on farm.

Take Home Message

Table 1.0 Some of the results that we have seen this year in the lab.						
	DDM %	NDF %	CP %	DM %	ME Rum MJ	ADF %
Canola Hay	50 - 60	58.5	14 – 16	High 80's	7 - 8	35 - 45
Canola Silage	50 - 58	55-58	14 – 16	Low 20's	7 - 9	40 – 46
Wheaten Hay	62 - 68	52 - 59	7 - 12	85 – 88	9 – 10	24 - 31
Pea Hay	69 - 75	55 – 60	16 - 18	88 - 90	10.5 – 11.5	19 - 26
*These results are intended as a guideline only. Your forages may test differently it is always best to get forages tested individually.						

Table 1.0 shows the range of results that we have seen thus far in our labs. Forage testing is highly recommended as a base starting point for ration balancing. Once you know what's in the shed its easy to figure out what to put in the silo!

The main thing to be aware of at the moment is that there are many alternative sources of forage that can be used safely to supplement animals. However with many of these forages there needs to be some close monitoring for mould issues and it is essential to obtain vendor declaration forms assuring you of the crops suitability for your animals.

Cheap feed is not always cheap in the long run and care must be taken especially as animals are hungrier than normal at present and more liable to eat feed that may cause problems