

# Forage options for summer and autumn

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This information is a summary only. More detailed information can be found on the NSW DPI web page (<http://www.dpi.nsw.gov.au/>) and information is also available from NSW DPI district offices.

## Key Points

- Summer options will be risky. Stored soil-moisture and January storm rain will be needed.
- Autumn rainfall will dictate how early a winter forage option can be sown and therefore which one.
- Be aware of stock health issues.
- Don't sow too large an area. Plan an area that you can manage the dry matter production, either by grazing or making hay or silage.

## Forage options

Many growers are looking for summer or autumn forage options to provide feed or ground cover.

This article lists the major considerations when choosing a summer crop for a given paddock. It is a guide to help prompt questions rather than provide all the answers. Each paddock will be different.

As with any season, a successful summer forage crops will depend on good agronomic management.

### *Stored soil moisture*

Carefully check the level of stored soil moisture. It may be better to fallow the paddock through to a winter crop, rather than risk planting on marginal moisture.

### *Sown area*

Sow small areas which can be grazed effectively. Forages need careful grazing management to keep them vegetative and maintain quality.

### *Residual herbicides*

Many paddocks which had a winter crop in 2006 will have had pre-sowing residual herbicides applied (such as Group B sulfonyleureas) which will prevent the sowing of most summer crops.

### *Grazing management*

Consider a 3 or 4 paddock rotational grazing system. Allow for a relatively short grazing period (1 – 2 weeks) and a longer recovery period (4 – 6 weeks) depending on rainfall and temperature. Always graze when the crop is unstressed to avoid animal health concerns. Introduce stock onto new forage slowly over a few days and never when they are hungry.

### *Overall rotation*

Another consideration is how the crop fits your current rotation. Although there is pressure to produce feed by planting summer forage crops, consider how those crops will fit back into the winter rotation. Maintaining a balance of winter crops and forage crops is the key to risk management.

### *Stubble handling*

Give some thought to managing stubble. Forage sorghums can leave thick stems.

### *Level of experience*

There are considerable risks associated with growing a crop for the first time. Do not grow large areas unless you have previous experience. New crops can be risky and have large variable costs.

### *Level of risk*

Summer cropping is considered riskier in southern parts of the state because of the dry summers. This risk can be partly compensated by good levels of stored soil water.

## Summer options

### Forage sorghum

Forage sorghum is the most productive and fast growing forages. It can produce large volumes of feed relatively quickly. Check the sowing dates for your district. As a general guide, it can be sown when the threat of frost has gone and soil temperatures have reached at least 16°C at sowing depth at 9 am.

Graze carefully, once the crop is well established and 50 cm high and unstressed. If the crop is stressed, there is a high risk of Prussic acid and/or nitrate poisoning. Forage sorghum can be grazed eight weeks after sowing. Several cuts or grazings are possible in good conditions.



### *Hybrid Forage Sorghum*

- Stem of medium thickness
- Grazing in 7 to 8 weeks
- Graze when >50 cm, but check variety
- Prussic acid risk

### *Sudan Grasses*

- Less feed than forage sorghums
- Stems are very fine
- Quicker initial growth
- Lower prussic acid risk

### *Sweet Sorghums*

- Retain feed value and palatability
- Stem relatively thick
- Higher levels of prussic acid than the forage sorghums during early growth
- Graze when 150 cm high
- Regrowth after grazing is inferior

### **Forage millets**

Millet has less dry matter production than forage sorghum but higher quality feed for smaller animals such as sheep. It also has a better fattening and hay/silage potential than sorghum. It can be more difficult to establish than the larger seeded sorghums. It can be grazed 5 to 7 weeks after sowing but does not stand harsh grazing. There is no prussic acid poisoning risk, but there is a photosensitisation risk

Paddock selection is important, beware of residual herbicides. There are also few herbicides available.

Millet can run rapidly to head in hotter weather so grazing management is important. It is also frost sensitive.

Be careful of seed quality.

### *Japanese Millet*

- Shirohie (selection from Japanese) gives better regrowth and is later to mature
- Needs shallow sowing
- High quality fodder
- Graze when 20 – 30 cm high
- Suitable for sheep
- Establish quickly and early growth is rapid
- Does not endure harsh grazing

### *Pearl Millet*

- Similar production to forage sorghum
- Recovers well from grazing
- More drought tolerant than Japanese

### *Pennisetum Millets*

- Good drought tolerance
- Slow to mature
- Graze when 40 – 60 cm high
- Don't graze below 15 cm or regrowth can be affected
- Quality reduced when growth exceeds 100 cm

### **Autumn options**

Forage options in autumn will also be important. The main consideration will be soil temperature. Hot conditions and soil temperatures above 20°C and rapidly drying soils cause patchy establishment. Soil temperatures greater 25-28°C will kill germinating seeds.

The other concern will be weed control. Delaying sowing may be wise if grain recovery is important.

If there is an early break do not sow crops too early – be aware of frost risk at flowering.

### **Cereals**

For overall forage production, oats will generally produce more than wheat, barley, cereal rye or triticale. Quality tests show no significant differences in levels of protein, energy and digestibility.

Where early sowing is desired, choose varieties with a strong winter habit. Head initiation does not occur in these varieties until there has been exposure to periods of cold temperature (vernalisation). Late maturing varieties, without winter habit, when sown early require quick and early grazings to retard early growth and head emergence.

Oats is the best option for very early sowings, however, except for the very high tableland areas, January and February sowings are risky. Wheat, barley and triticale may also be options. Triticale is slightly more tolerant of hot, dry weather than wheat.

### **Other options**

Other options, depending on sowing time, may include ryegrass or canola/forage brassicas.

Ryegrass may be a short-term option for a March/April sowing time.

Be careful of the animal health issues in grazing canola or forage brassicas. Also be aware that early sown canola crops will be at risk from blackleg.

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