

## Pasture Grasses of the Barkly Tableland Part 3. Feathertop Wire Grass

### *(Aristida latifolia)*

S. Streeter, Pastoral Production, Tennant Creek

#### DISTRIBUTION

Feathertop wire grass (*Aristida latifolia*) occurs commonly in association with Mitchell grass (*Astrebla* spp.) on the black soil plains of the Barkly Tableland. It is virtually confined to the heavy cracking clays, unlike other *Aristida* species in the region, which tend to occur only on the red sands and clay country. Feathertop wire grass is most often found in the Barkly Tableland with Mitchell grass (*Astrebla pectinata*), Flinders grass (*Iseilema* spp.) and never fail/love grass (*Eragrostis* spp.) community. It is also frequently seen in Gidgee (*Acacia* spp.) country and is found in all mainland States except Victoria. Other species of *Aristida* found in the Barkly area include erect kerosene grass (*A. holathera*), bunched kerosene grass (*A. contorta*), unequal three-awn grass (*A. inaequiglumis*) and yellow three-awn grass (*A. anthoxinthoides*).



#### DESCRIPTION

Feathertop wire grass is a tussocky perennial with slender, erect stems and grows to about 60 cm tall. The stems are mostly unbranched and are covered by tight leaf sheaths. The long narrow leaves often become curled or twisted as they dry off, forming an entangled mass at the base of the tussock. The seed head is narrow with short branchlets and may be up to 45 cm long. This species gets its name from the feathery appearance and feel of the seed head, created by the fine awns attached to the densely clustered flowering parts and seeds. Each seed bears three fine awns, which are twisted spirally into a column in the lower part, and spread out at the top.

#### PASTORAL VALUE

Although feathertop wire grass is a much finer and softer grass than most of its close relatives, it is relatively unpalatable and is considered of little feed value. In a grazing situation, animals generally ignore feathertop wire grass in favour of the more palatable species growing in association with it. However, feathertop wire grass tussocks are valuable in soil stabilisation and in controlling soil erosion

The abundance of this species in a pasture can fluctuate markedly in response to seasonal and grazing influences, and can cause management problems under certain combinations of these influences.

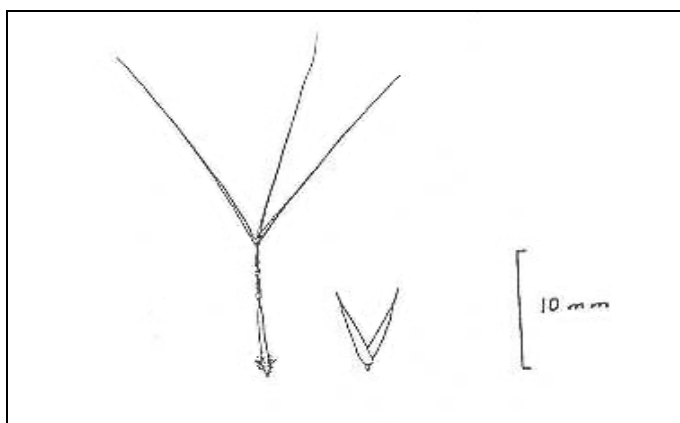


Over a series of wetter than average years, feathertop wire grass populations will increase in proportion to other perennial grasses. On the other hand, extended periods of drier years will reduce its abundance compared with the hardier Mitchell grasses and other perennials.

If during a dry period overgrazing causes the depletion of favourable perennials (e.g. Mitchell grasses) and is then followed by a run of wet years, feathertop wire grass is likely to dominate pasture. Such dominance by it is an important indicator of declining pasture quality, usually resulting from continuous heavy grazing.



**A feathertop wire grass seed head**



**Feathertop wire grass seed showing awns and spiral column. The papery husk (right) remains on the seed head after the seed has fallen.**

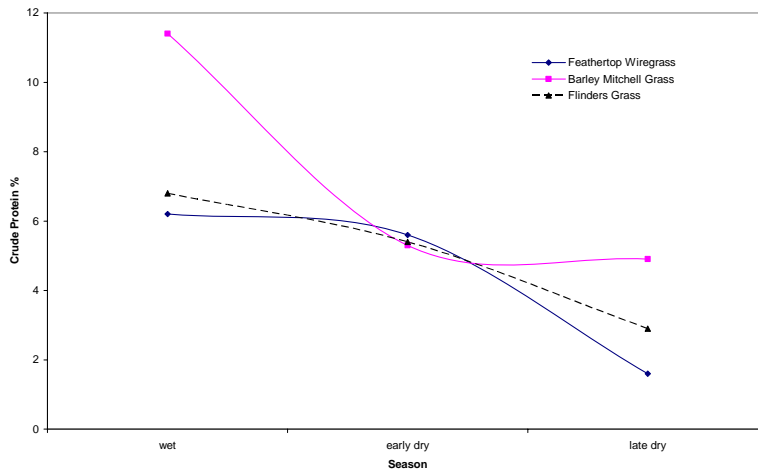
## **NUTRITIONAL VALUE**

Feathertop wire grass is generally ignored by stock in preference to the more palatable grasses such as the Mitchell and Flinders grasses. When cattle are placed in a relatively non-selective situation, feathertop wire grass is consumed along with other grasses.

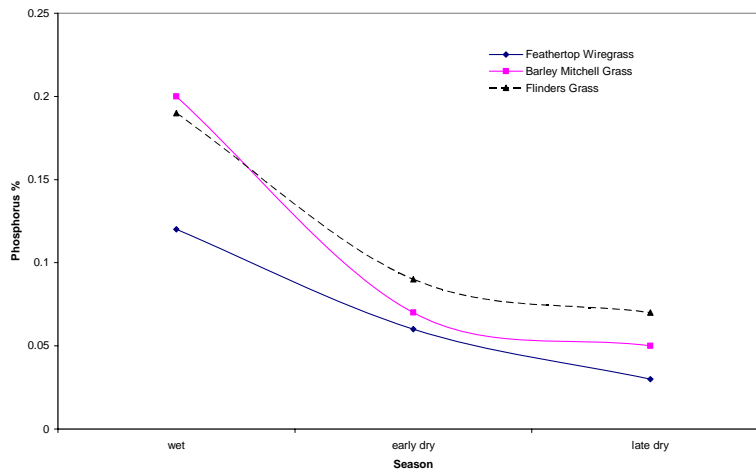
The crude protein content in feathertop wire grass over the wet season is considerably less than that in barley Mitchell grass, but similar to that in Flinders grass. By the end of the dry season the crude protein content in feathertop wire grass is very low.

Similarly, the phosphorus content in feathertop wire grass is considerably lower than that in barley Mitchell grass and Flinders grass, remaining at approximately half of their levels throughout the year. By the end of the dry season the phosphorous content of all three grasses falls dramatically. However, the relative proportions remain the same, the phosphorus content in feathertop wire grass remaining considerably lower than that of the other grasses.

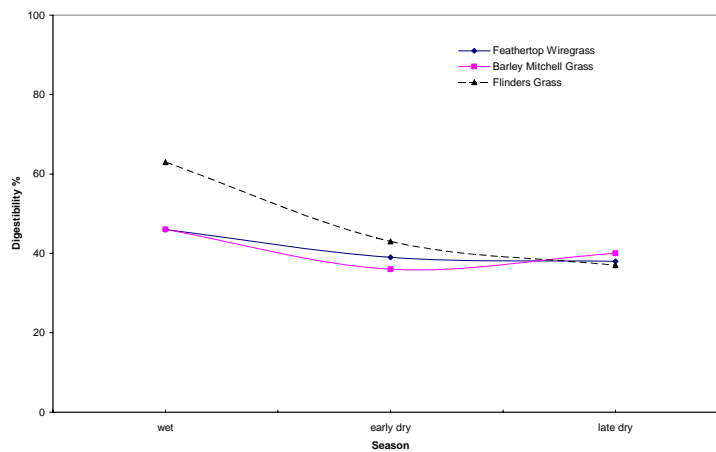
The digestibility of feathertop wire grass is relatively similar to that of barley Mitchell grass. However, it is considerably less digestible than Flinders grass over the wet season.



**Figure 1.** Seasonal trend in crude protein content in three Barkly Tableland pasture grasses



**Figure 2.** Seasonal trend in phosphorus content in three Barkly Tableland pasture grasses



**Figure 3.** Seasonal trend in dry matter digestibility of three Barkly Tableland pasture grasses

## MANAGEMENT

Feathertop wire grass has the ability to rapidly increase under favourable conditions. Where palatable perennial grasses have been reduced through heavy grazing over dry periods, feathertop wire grass may become the dominant perennial grass in the pasture.

Research in Queensland has found that light to moderate stocking of pastures in this condition will increase the problem because of selective grazing of the fewer palatable tussocks, thereby reducing competition for feathertop wire grass even further.

If feathertop wire grass is a problem, heavy grazing during the wet season will reduce its abundance, as stock will graze it along with the more palatable species. Reducing the stocking rate or spelling early in the dry will give Mitchell grasses a chance to out-compete feathertop wire grass. This is especially important after a light wet season.

Burning feathertop wire grass in the spring can kill the plant and reduce the current year's seed production as well as remove the previous year's seed stock (Martin and Phelps 1996). Livestock grazing the burnt area will be less selective and graze the fresh feathertop wire grass shoots along with other more palatable grasses.

While not a major worry on the Barkly Tableland, feathertop wire grass can be a problem in some years. This may be simply an indicator of an extra good season, or time to give the country a spell from heavy grazing.

If feathertop wire grass is becoming a problem, **heavy grazing through the wet season followed by lighter grazing/spelling over the dry, or burning in spring** are effective methods of reducing populations. Maintain an adequate and healthy stand of Mitchell grasses and other palatable species to prevent feathertop wire grass from emerging as a problem during good seasons.

## FURTHER READING

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