

Fire Management - 1

M.W.Last
January 08

This fact sheet describes the management of grasslands around communities and homelands on the Anangu Pitjantjatjara Yankunytjatjara Lands. During the 1980's native grasslands surrounding some of the smaller communities and homelands were burnt out by hot wild fires. In some cases the grasslands did not regenerate leaving these communities surrounded by a sea of sand and dust. The soil surface became unstable and the solution was to introduce a perennial grass to stabilize the shifting sands. This grass, known as buffel grass (*Cenchrus ciliaris*) was very slow to establish, however when it did, it provided the required ground cover. This grass is now so dense around some communities and homelands that it has become a permanent fire hazard.

The following information provides a seasonal guide for managing buffel grass as well as native grasses on the Lands.

The Winter Season (May to August)



The buffel grass in this picture is long and rank and should be slashed to allow new growth to emerge before a herbicide is applied.

The growth of vegetation slows down during this season due to the cold. The sap flow in plants has decreased, hence the absorption of herbicides to kill grasses is greatly reduced. The use of herbicides during this season is not recommended.

The best practice in the winter season is to slash grasses around houses, buildings and open areas within communities and homelands. This is done with a tractor mounted slasher, a whipper snipper or a robust hand operated mower.

Where applicable the areas surrounding communities and homelands should be burnt, however this activity should be undertaken when conditions are favourable for producing cooler burning fires. This is necessary to prevent the destruction of local tree and shrub species. Consult people who live in the area for knowledge about patch burning practices.

The Spring Season (August to November)



The buffel grass in this picture is the regrowth after it has been slashed and is ready to spray with a herbicide.

Grasses slashed in the winter season will produce green shoots even without rain. If rain has fallen prior to or during the spring season then the growth of grasses will be rapid.

In the case of native grasses they may require slashing again to control their growth.

In the case of buffel grass it will be necessary to remove it from around houses and buildings. The easiest method is to spray the new growth (shoots 50 - 100 mm long) with herbicide. The most common herbicide is glyphosphate and a rate of 100 ml per five litres of water has been found to be very effective.

In the early spring any long grass remaining from the winter season should be slashed or burnt.

The Summer Season (November to March)

Use a whipper snipper for removing long dry grass from around houses and buildings or a tractor mounted slasher for the larger unfenced areas.



This is the hottest season of the year and hopefully all dry grass has been removed during the winter and spring seasons. If this is not the case then a slasher should be used immediately to cut any long, dry grass to reduce the fire hazard around houses and buildings and in open areas.

If patch burning is used in this season then it should be carried out with the greatest of care because the danger of the fire escaping and spreading across the Lands is very high.

This is also a good time of the year to apply herbicide to young grass shoots, especially if summer rain has fallen.

The Autumn Season (March to May)



The patch burning pattern in this picture shows how the overall fuel load of grasses can be reduced around a homeland thus reducing the threat of destruction from hot wild fires in the summer season.

This season is variable and can be hot, warm or cool. The conditions of each autumn season will determine whether to slash or burn the accumulation of spring and summer growth. Usually a combination of both are used to control the fuel load produced during the season.

If slashing is done early in this season then it will be possible to use herbicide effectively before the cooler weather retards growth.

Late autumn and early winter can be a useful time to repair and replace equipment. It is also a good time to plan further fire management strategies for communities and homelands.

Note: In the picture on the left a native grass (annual) has been burnt after its seed has fallen (late summer or early autumn) to allow it to regenerate. Buffel grass is a perennial and should be controlled by preventing it from setting seed.

Procedures

1. Do not spray grasses with herbicide when they are long and rank. Slash this material so that new growth will emerge. Only spray the new growth of grasses with herbicide.
2. The window of opportunity for producing new growth in grasses is from August to April, hence this is the period in which herbicides can be effectively used.
3. Remove all grass from around houses, buildings and public utilities.
4. Establish fire breaks around communities and homelands that can be easily serviced and maintained.
5. Establish a program for slashing and patch burning for each community and homeland.
6. Native grasses are mostly annuals and are not burnt or slashed with the same intensity as buffel grass.
7. Once grasses are removed, prevent them from re-establishing by using appropriate landscaping techniques eg. covering the grass free areas with scalps or other suitable material. In some cases shrubs can be used to replace grasses, however the germination of grass seed in successive years needs to be checked.
8. It is important to record a fire management program for each community and homeland as well as record each visit when operating the program including the date and the people involved.

Comment

The seasons on the Anangu Pitjantjatjara Yankunytjatjara Lands are impossible to predict so the managers of fire management programs will need strategies to control the rapid growth of grasses which result from any unseasonally high rainfall events in the warmer months of the year.