

Fire helps protect grazing country

Fire management protects valuable grazing country as well as heading off wildfire at Rosewood Station

Rosewood Station is located 100km south west of Timber Creek, in north-western Northern Territory. Rosewood is 3000km² and runs a total of 27,000 head when fully stocked. Fire is used on the property to reduce the risk of wildfire, manage grazing behavior and to assist in regenerating pasture.

Rosewood experiences an average of 630 mm of rainfall a year, and the station boundaries encompass a variety of land types breaking the country into black soil and red soil areas. The most valuable cattle grazing country is the black soil areas which consist mostly of Mitchell grass, Flinders grass and Aristida species.

Bordering land

Rosewood station borders onto Aboriginal land to the east. Much of this land is very lightly stocked and thus fuel loads can be quite high, potentially creating a major wildfire risk. To combat this, the manager and staff carry out a lot of preventative burning strategies to reduce the risk of fires crossing the boundary.

Rosewood has more than 700 km of bore roads that are graded with two cuts, and have proved excellent firebreaks; they also provide a good break to burn off in the early wet. Roads and fence lines are used as firebreaks to stop fire or as starting points to burn off from, should any area face the risk of wildfire.

Timeline for burning

Most preventative (fuel reduction) burning begins in early December with the last chance for burning in April.

Opportunistic burning is carried out from helicopter and 4WD, in areas where fuels are prolific and fire appears to be a potential threat. Burning of black soil country is avoided due to the uncertainty of the response of the black soil species.

It has been found that once red hilly country (stocked) on Rosewood has burnt, fire will not be a major threat in that region for about another three years.

Burning the red soil country promotes fresh regrowth and encourages cattle to move out to the hills away from the bore in the wet season. This is an important component of spelling the country around the major watering points and allows the pastures in these areas to regenerate without heavy stocking pressure.

Fire and woody weeds

Fire is also used to reduce weeds and woody shrubs along rivers and creeks. Burning the riparian vegetation has been used to knock back woody shrubs as well as a few weed species, and though it has not eradicated the weeds completely it does reduce the population significantly.

Germinating stylos

Fire is also used on Rosewood to help germinate introduced stylos pasture (*Stylosanthes scabra*). Red soil areas are burnt preceding the spread of stylos seed to help reduce competition from other grasses. By knocking back other grasses with fire, seed can reach the ground, with a better chance of germination because of reduced competition for moisture, light and nutrients. Burning creates a bed of ash that the stylos seed will sit in before the rain. Stylo is spread from the air, with the seed distributed via chute from the helicopter.

High fuel load areas

A major component of the effective fire and pasture management on Rosewood station is to identify high fuel load areas. Boundaries, roads and fence lines are well maintained for access to country and firebreaks, and good relations with neighbors are maintained to ensure that wildfires are not a major threat to land and livestock. The combination of thorough knowledge of the country and its parameters, as well as neighboring country has resulted in good land management on Rosewood station.

For more information about land-management issues in northern Australia, go to the Savanna Explorer section of our website at <http://savanna.ntu.edu.au/>

For more information about the Centre's extensive research program go to our research section.

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