



Case studies

Denis and Stacy Franks, 'Gavial Station', Rockhampton Qld.



Floodplain areas are where most landholders are experiencing difficulties managing lippia

PROPERTY DETAILS

Location: 10km south of Rockhampton on the Southern Fitzroy floodplain

Catchment: Gavial Creek, Fitzroy River

Property area: 1,800 hectares

Main enterprises: Beef cattle grazing with crop share-farming

Where lippia is a problem: Floodplain country

(Photo by P. Crawford)

General information and lippia infestation

The Franks purchased 'Gavial Station' in 2004 and lippia was dominant at this time. Lippia is believed to have become established after the 1991 floods which inundated the property. At the time of purchase, about 85% of the property was heavily infested with lippia. Lippia was dominant on all low-lying flood prone parts of the property and where water ponded for prolonged periods.

In areas where lippia was dominant

it contributed up to 90% of the groundcover present. The Franks believe that overgrazing by the previous owners had removed all of the desirable competitive species from the pasture system, allowing the lippia to invade.



Typical lippia infestation on floodplain country on Gavial Station

(Photo by D. Murray)



Planting corn on previously lippia infested country on Gavial Station

(Photo by D. Murray)



Silk sorghum provides excellent competition for lippia as well as providing a good supply of cattle feed

(Photo by D. Murray)

Methods of lippia management

Five pondage banks have been lowered or removed from 'Gavial Station' to reduce the area affected by prolonged water pondage. Areas where lippia is most dominant have been leased for farming.

Full cultivation and pre and post emergent herbicide treatments have been used to reduce lippia infestations. Herbicides used for fallow weed control include a combination of knock down herbicides at recommended rates. Starane was used in the post emergent herbicide application with very good results. Crops have included wheat, corn, forage and grain sorghum.

Pasture monitoring following the first winter cropping cycle indicated a 50% reduction in lippia frequency.

In areas less suitable for cropping, direct pasture replacement has occurred. Prior to reseeding, paddocks were ploughed twice (no herbicides were applied). Cultivation was targeted for periods when the lippia was stressed from low soil moisture levels. Pasture species planted include Rhodes grass, Floren bluegrass and Silk sorghum. In areas subject to pasture restoration, 100% groundcover has been restored. Close to 0% lippia re-establishment has occurred in these areas.

Future control options

Cropping is to continue until the frequency of lippia is reduced to 0%. Pasture species are to be re-established in cropping areas. The property is to be monitored regularly for lippia re-establishment and immediately treated with selective herbicides if this occurs. Stocking rates are to be monitored to ensure regenerated and existing pasture is not overutilised and a long term pasture cover of 80% is maintained for a considerable length of time.