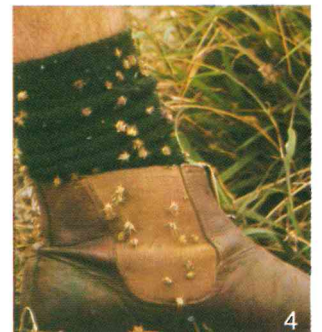


MOSSMAN RIVER GRASS and SPINY BURR GRASS



1. Mature plant.
2. Infestation.
3. Flowering spike.
4. Burrs attach to clothing.

(continued overleaf)

MOSSMAN RIVER GRASS and SPINY BURR GRASS

Mossman river grass (*Cenchrus echinatus*) and spiny burr grass (*C. incertus* and *C. longispinus*) are closely related grasses. They are found as occasional weeds in the agricultural areas of W.A. Mossman river grass is also common in the Kimberleys.

They are both introduced weeds; in the case of spiny burr grass from Jamaica and central America. They appear to have been introduced to the eastern states early this century. Mossman river grass is a common weed of disturbed sites in Queensland, the Northern Territory and the Kimberleys. Spiny burr grass is found in more southerly areas; it is well established in the Victorian Mallee and in some irrigation districts of the Murray valley.

Occurrence

Both appear to have been brought to the south-west of W.A. by tourist traffic or livestock transport. They now occupy several thousand hectares in the Geraldton region and small sites elsewhere. Both grasses appear to prefer sandy soils.

Significance

Both plants have mainly nuisance value. They are readily grazed by sheep when young, but the mature seedheads have spiked burrs. These damage the feet and mouths of livestock, interfere with shearing, penetrate hides and contaminate wool. Infestations in townsites and recreation areas cause inconvenience to the public. Mossman river grass is a serious weed of horticultural crops in Queensland and the Northern Territory. It could become a problem in irrigated pastures and market gardens in Western Australia.

Ecology

Both are normally summer-growing annual plants although spiny burr grass is sometimes biennial. Mossman river grass germinates in spring and spiny burr grass from spring to summer. They form seeds from January until April. Up to 30 burrs are formed on each flowering spike and hundreds of burrs may be formed on one plant. Most plants die off in early autumn. There are usually three

seeds in each burr. The primary seed is larger and shows little seed dormancy, while the two secondary seeds are smaller and may remain dormant in the soil for up to three years.

Deep buried seeds often germinate to produce new plants. However seeds left on the surface seldom germinate due to the inhibiting effect of light and drier conditions.

Seeds are spread by attachment to animals, clothing or vehicles. They may also be contaminants of hay, grain and chaff.

Appearance

Mossman river grass forms loose tufts up to 60 cm across, while spiny burr grass is erect. They have unbranched stems which often grow horizontally at first. Then they bend from the lower joints and rise vertically. The leaf sheath has hairy edges and a fringe of short hairs surrounds the leaf sheath-blade junction. The leaf blade surfaces are smooth except for Mossman river grass which is hairy on the upper surface. The flowering stalk is rough with ridges and projections amongst the burrs.

The three species differ mainly in their straw-coloured burrs. The spikelets of Mossman river grass are set on short stalks (pedicels) and enclosed in spiny burrs while the spikelets of spiny burr grass are stalkless and are surrounded by sharp spines.

Mossman river grass and spiny burr grass are fairly expensive to control with herbicides. However under WA conditions paddock infestations are quickly eaten off by sheep.

These grasses are closely related to two important forage plants, buffel grass and birdwood grass. Therefore they are unlikely to be suitable for biological control.

It is important to prevent the spread of these nuisance weeds from the small infestations already known in the south-west of W.A.

For further advice on Mossman river and spiny burr grass recognition and control, telephone (09)368 3333 or contact your local Agriculture Protection Board district officer or the nearest office of the APB or Department of Agriculture.