Oldman Saltbush management fact sheet

Environmental benefits

The Australian native plant, oldman saltbush (OMSB), *Atriplex nummularia*, is a deep-rooted perennial shrub that is tolerant of drought, saline soils and shallow water tables. This plant can be used to lower water tables and stabilise soil. It is excellent at improving soil organic matter levels and providing ground cover and shelter. It reduces possible salinity impact in vulnerable areas and can assist in reclaiming saline lands.

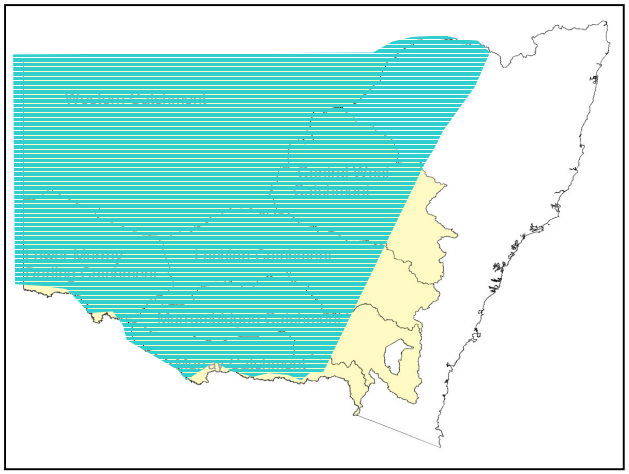
OMSB can reduce soil erosion by binding the topsoil and reducing wind, which will also protect other plants and animals. Saltbush will also act as a fire retardant.

OMSB plantations are excellent for relieving feeding pressure on other grass paddocks at critical times - allowing for stronger growth & regeneration of the perennial grass species.

Production benefits

As a fodder plant OMSB provides insurance against droughts, provides grazing flexibility as well as increasing the over-all farm productivity. OMSB is palatable to livestock and can provide succulent, high protein, green feed all year round. It is an ideal supplement to pasture, stubble or grain. Also, as leaves are off the ground, there is no loss through trampling and there is a much-reduced incidence of internal parasites in stock.

Map 1. Economically suitable region to establish OMSB plantations given correct soil types



Once established, OMSB will remain productive for at least 20 years, providing the basis for a sustainable, highly productive and consistent grazing system. Its capacity to provide quality, protein feed and to retain leaf under long, dry conditions allows the period of feed availability to be greatly extended. When OMSB is used in conjunction with other pastures it often allows landholders to change to a more profitable & sustaining land practice utilising livestock.).

Economic benefits

There is only a one-off cost for establishing OMSB with very minimal ongoing costs. The total economic benefit of this system will vary with annual price fluctuations. However, significantly improved returns can be obtained from grazing sheep & cattle on OMSB over a 10 year period compared to dryland cropping or from grazing animals on annual pastures. This does not include the added benefits from management flexibility, reduced business risk, shelter, better land management and sustainability of enterprise.

Climate and soil suitability

Saltbush is suited to most of the main 'wheat-belt' areas of the slopes and plains. It is well adapted to areas with an annual rainfall of between 300 and 600 mm. Saltbush prefers slightly acid to alkaline soils but is suited to most soil types except very acid (pH_{CaCl} <5.0) or deep sandy soils and areas subject to frequent, deep summer flooding.

OMSB plantation growing during drought conditions

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Planning

An OMSB plantation is a permanent planting and requires careful planning, capital input and time. The shrubs can be grown in a range of configurations including hedge-rows, high or low density populations or alley plantings across the landscape – all methods provide valuable shelter for animals, pasture and soil.

For best grazing performance, OMSB needs inter-row or adjacent pasture areas to supply an energy source for animals. Perennial pastures are suited as a companion sward and can be established either prior, during or after saltbush planting.

Saltbush is best used to fill seasonal feed gaps and to provide a high protein supplement to other dry pastures and stubble. Strategic de-stocking of perennial grass country after rains is a most important use. With these management uses in mind, the planning of plantation block sizes should relate to total stock numbers and the duration that OMSB is intended to be grazed for.

Establishment

Transplanted seedlings should be used to successfully establish plantations. Direct seeding is optional but not recommended for most areas as results have been very variable.

Prepare the land well in advance, working to a depth of 15 to 20 cm and keep country clean of weeds. OMSB should only be planted when adequate sub-soil moisture is available. Avoid planting seedlings during mid-summer. Seedlings should be 'watered-in' at planting.

Plant densities should be between 1,000 and 2,500 plants per ha. Seedlings planted at the higher density are usually planted in skip rows of 2 & 4 m rows with 1.2 m intra-row spacings. Plantings should be on the contour on sloping land.

OMSB is a very poor competitor with other pasture species in the first 3 months and so good early weed control is critical for successful establishment.

Management

Once established OMSB is best managed by short periods of heavy stocking - followed by a recovery period to allow plants to re-grow and strengthen root reserves. Saltbush is not just a living haystack; it needs to be well managed to remain a productive feed source.

Do not graze new saltbush stands for 10 to 12 months. All grazing periods should be no longer than 2 to 3 weeks for any one sub-division, then followed by an 8–10 month recovery period. Sub-divisional fencing of a plantation should ensure that grazing of all plants can be achieved in this time period. Stock levels should be managed so that near total defoliation of leaf occurs. Plants may need a periodic mechanical pruning to lower branch height and to keep bush productive,

Young stock or new animals need to be educated to eat OMSB, similar to that for any other new feed type. This may take two or three weeks. The inclusion of older experienced stock helps to hasten this process.

Best grazing results occur when stock are on OMSB for extended periods & with a good inter row grass cover. This gives better grazing results than just a one-off short-term grazing. Longer-term grazing is achieved by rotating stock through several smaller paddocks planted to OMSB.

The best use of the OMSB feed and shelter for young animals can be achieved by initially grazing lambs or lambing ewes in fresh blocks, then followed by a flock of wethers to clean up the remainder.

Further Details

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