

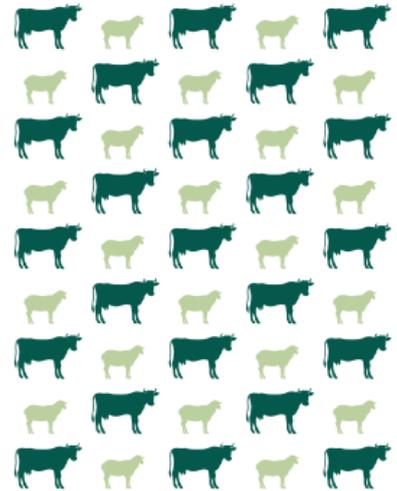
Carrying capacity – definitions for the Western Australian Rangelands

Carrying capacity is about land capability, while stocking rate is a management decision

Potential carrying capacity

This estimate assumes that all the managed area is in good range condition, is fully watered and can be grazed throughout the whole year under average climatic conditions. It is the estimated average number of livestock (in Animal Equivalents, Cattle Units of Dry Sheep Equivalents) that can sustainably graze a unit of area (km² or ha) at maintenance (not gaining or losing weight) for a year if all pastures are in good condition and accessible.

Note that the situation described above is often unattainable in practice for pastoral businesses. The estimated PCC is used by the valuer-general in calculating pastoral lease rents, along with several other factors, and by real estate agents.

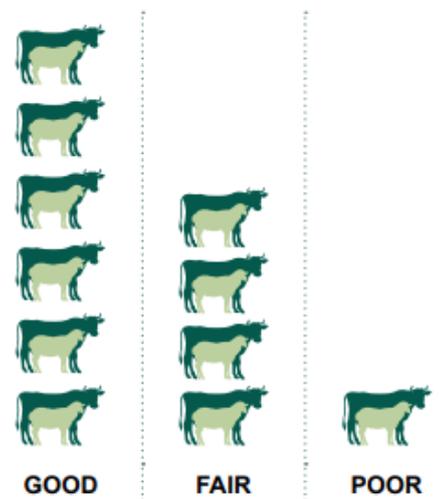


Current carrying capacity

This estimate applies a discount for the parts of the managed area that are in fair or poor range condition, while still assuming all parts are fully watered and able to be grazed throughout the whole year under average climatic conditions.

- **Fair condition** pastures are two-thirds as productive as good condition pastures, and
- **Poor condition** pastures are less than half as productive as good condition pastures in the rangelands.

The current carrying capacity (CCC) is estimated by the department when rangeland condition is assessed on a pastoral lease. It is the estimated average number of livestock (in AE or CU or DSE) that can sustainably graze a unit of area (km² or ha) at maintenance (not gaining or losing weight) for a year, discounted for range condition, if all pastures are accessible. A discount for grazing radius has not been applied.

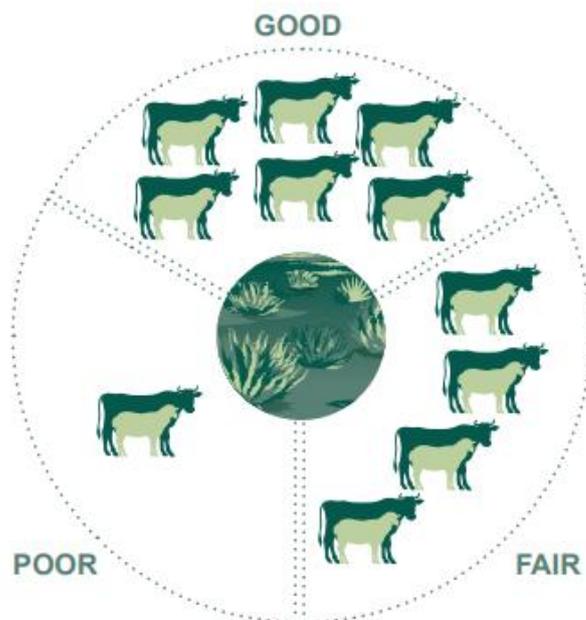


Seasonal carrying capacity

This short-term estimate is the amount of feed available for grazing by stock, sometimes called feed on offer, over a planning horizon (e.g. days, months, or until the next key decision date).

Seasonal carrying capacity (SCC) estimates are made by the land manager around key decision dates based on long-term climate data, and consider the current season, the condition of the pastures, grazing radius, amount of residual feed required and practical management considerations, such as infrastructure, labour, supplementation, live export boats (timing and availability), and similar.

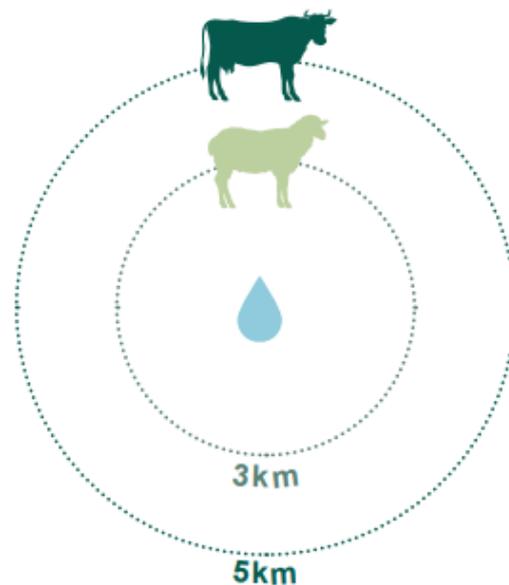
SCC may be higher than CCC estimates at times due to a good season but will most often be lower due to supplementation and residual feed needs.



Discount for grazing radius

Sheep normally graze within a radius of 3 km of a watering point, and cattle within a radius of 5 km. Stock requiring more water due to climate, lactation, salinity or dry feed may need to drink more than once a day. This will reduce their foraging radius and the area of the paddock being used.

The further the animals walk, the less weight they put on. The estimated PCC discounted for grazing radius is most used by financial institutions when considering applications for business



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