

How many horses can I keep on my property?

The answer to this question is related to stocking rates, which are calculated on the classification of land type, the rainfall and also to the improvements on the land, fences, watering points, stabling and yard facilities, and your financial and physical capability to be able to feed your horses if it is required.

What are stocking rates?

Stocking rates are the numbers of stock, e.g. sheep, cattle, horses, emus or any other type of animal that can consistently be kept on a piece of pasture all year round with minor additional feed and without causing environmental degradation.

The base stocking rate is the number of DSE that would apply to a rural small holding with the lowest level of pasture management in an average year. The recommended base stocking rate should:

- provide enough feed to maintain animals in good condition;
- avoid soil erosion by providing enough pasture cover to protect the soil throughout the year (management such as stock rotation may be necessary); and
- be sustainable through average years.

Any increase in the base stocking rates will depend on pasture improvement, farm planning and nutrient management as well as statutory requirements. Proposals to carry stock in excess of the base stocking rate should be the subject of a development approval to use the land for a Rural Pursuit. A stock management plan will be required to accompany the application. Stocking rates for commercial purposes are classified separately under the provisions of the local planning scheme.

Stocking rate units

To simplify the calculation of stocking rates, the DPIRD have divided the soil-landscape information for the Swan Coastal Plain and Darling Scarp into 10 stocking rate units with similar soils and similar management requirements. The units that generally apply to the Shire of Northam are:

Table 1 - Base stocking rates for stocking rate units (DSE/hectare)

Stocking rate land unit	Unit code	Recommended dry stocking rate	Recommended irrigated stocking rate
Well drained yellow to brown sands	SR1	6 DSE/ha	20 DSE/ha
Pale sand flats	SR4	6 DSE/ha	20 DSE/ha
Semi-wet soils	SR5	6 DSE/ha	20 DSE/ha
Gravel slopes (Shallow gravels and ironstone outcrop)	SR8 SR8.1	10 DSE/ha (2 DSE/ha)	25 DSE/ha (Usually not suitable)

What does DSE mean?

DSE is a stocking rate system related to '**dry sheep equivalents**' or how many dry (non-lactating) sheep can be kept year round on the land without soil degradation, weight loss and with only minimum handfeeding. It has been assumed that 1 dry sheep is equivalent to 50kgs. As a landowner of a small rural property, it is advisable to understand DSE.

The WA Department of Primary Industries and Regional Development in the Stocking Rates Guidelines, calculated as a general guide that:

- 1 light horse = 10 dry sheep
- 1 pony = 5 dry sheep
- 1 draught horse = 20 dry sheep

It is sometimes appropriate to break down these calculations further to determine how many horses can be kept on a property. It is recommended that the NSW Department of Primary Industries' Prime Fact 494 – Estimating a horse's weight be used as a reference for this purpose as indicated in the following table.

Table 2 - Calculating the DSE using the NSW DPI Guide to Estimating Horses Weights

Type	Height at withers		Weight	DSE calculation
	(hands)	(cm)		
Shetland	8 – 10	81 – 102	200 – 225	4 – 4.5
Pony (small, saddle)	10 – 12	102 – 122	225 – 350	4.5 – 7
Pony (large)	13 – 14	132 – 142	250 – 360	5 – 7.2
Galloway	14 – 15	142 – 152	275 – 400	5.5 – 8
Lightweight hack	15 – 16	152 – 163	350 – 500	7 – 10
Heavyweight hack	16 – 17	163 – 173	450 – 600	9 – 12
Draught	16 – 18	163 – 183	550 – 800	11 – 16

Applying stocking rates to a property

Steps to take:

1. Firstly check with your local authority to see if there are any stocking rate restrictions specific to the property. For example the town planning scheme may have conditions such as:
 - no stock on properties less than 1 ha;
 - setbacks to adjacent properties;
 - restrictions on the type of stock.
2. Exclude the area of any natural features which cannot be stocked such as wetlands, drains and remnant vegetation which require appropriate setbacks and must be fenced to limit stock access (i.e. ground cover is essential so that some level of water filtration can occur).

Information Sheet

KEEPING HORSES ON SMALL RURAL PROPERTIES

3. Find the map units on the property using available land resource mapping and identify the corresponding stocking rates using Table 1.
4. If irrigated pastures are proposed, then a water source must be identified that is not Scheme water. For example, groundwater, dam or rainwater tanks. Irrigated pastures require up to 15,000 kL/ha/year.
5. Calculate the total DSE for the area of irrigated pasture by multiplying:
Area of irrigated pasture in hectares x DSE/ha (for each stocking rate unit)
6. Calculate the total DSE for the area of non-irrigated pasture by multiplying:
Area of non-irrigated pasture in hectares x DSE/ha (for each stocking rate unit)
7. Exclude setbacks to adjacent properties, plus rock outcrop, driveways, gardens, buildings and other structures.

A template and example calculation sheet is provided at Appendix 1. It may also assist with the calculations to draw a site plan showing the different soil types and stocking rates. An example is provided at Appendix 2.

Example dry sheep equivalent (DSE) calculation

Let's say you have 8 hectares (ha) of land rated at 8DSE/ha. To calculate how many horses you can run consider the following:

- area of property = 8ha
- minus area of bush/buildings = 2ha
- area available for pasture = 6ha
- area with restricted access for six months = 2ha (4 DSE/ha)
- area with all year access = 4ha (rated at 8DSE/ha).

With this information you can calculate the stocking rate as:
Total = (2ha x 4DSE) + (4ha x 8DSE) = 40 DSE

Therefore the area is sufficient for four light horses or two draught horses (based on the DSE ratios listed above).

Soil and pasture management

The aim is to have a pasture that is nutritional for horses and is hard wearing. With quality pasture and savvy grazing management, groundcover can be kept to at least 70% which will ensure erosion and weed infestations are minimised.

Grazing management is a real skill. Good managers ensure:

- paddocks are fertilised correctly
- pastures are not eaten down too far
- weeds and insects are monitored and controlled
- only adequate feed is available in spring to avoid founder
- the most appropriate grasses and legumes are sown
- soil pH (acidity) is managed.

Horse ownership can be a rewarding experience and one of the most enjoyable parts of living on the land.

However, the welfare of your horses and the preservation of your land need to be your top priorities. By following the information outlined, you will be well on your way to responsible horse husbandry.

Increasing stocking capacity

A stock management plan should be prepared when stocking a property in excess of the recommended base stocking rates, which is the subject to development approval from the Shire.

The issues listed below are important to any property but are particularly important when developing a management plan to carry stock at rates in excess of the recommended dry land rate.

Sites considered for higher stocking rates should:

- be confined to the better soils with higher stocking rates;
- not be located on slopes of greater than 10%;
- not be located in areas of shallow groundwater;
- incorporate drainage management to avoid direct run-off to streams or surface water;
- have yards or pens sheeted with compacted earth, sand or sawdust if located on clay soils;
- be located 100 m from streams, wetlands and lakes for intensive stocking;
- have vegetation belts adequately fenced and maintained between drains, lakes, wetlands and watercourses and the area of intensive stocking.

Yards should be constructed so that:

- stormwater cannot come into contact with the yard;
- yards can be regularly cleaned.

Manure should be:

- regularly collected and not allowed to accumulate in yards;
- stored in a dry area protected from run-off, or stored in an area where all leachate is retained by sediment settlement dams or bunds;
- removed off site or regularly broken up and spread over pasture, but not near watercourses, if retained on site.

Where do I find more information?

Further information can be obtained from the Shire's Website

Click on this link: www.northam.wa.gov.au

Phone: Planning Services Department on 9622 6100

Email: records@northam.wa.gov.au



The information contained in this brochure is intended as a guide only. It is recommended that the advice and assistance of the Shire's Planning Services Department be sought prior to lodgement of a Development Application. The Shire of Northam disclaims any liability for any damages sustained by a person acting on the basis of this information.