

Drought Management

By John Kohnke BVSc RDA

Horses are always hungry, and graze for 18-20 hours a day when at pasture. However, restricted grazing may be necessary during drought conditions. Although horses can obtain some feed from sparse dry pasture, hand feeding should commence well before horses start to lose condition or eat out the pasture, as it is hard to regain condition once it is lost. Breeding, growing and aged horses are likely to suffer the most under drought conditions.

Unfortunately, horses will continue to scavenge and eat pastures out, even when provided with adequate supplementary feed. This damages the pasture balance and restricts regrowth. It also encourages weeds, as well as creating bare soil areas due to horse traffic that will erode in wind, and when rain finally comes at the break of the drought.

Horses should be introduced to hand feeding gradually to avoid risk of laminitis (founder) and colic. Drought feeds do not need to be complicated mixes, but must be palatable and provide a balance of nutrients in a quantity to satisfy the appetite and meet basic requirements. The completeness of the ration is often dependent on the horse feeding budget, and the condition level desired for a working or show horse. There are 10 principles of drought management you should adopt.

	Action	Useful Hints
1	Group Horses <ul style="list-style-type: none"> • Nutritional demand • Condition Score • Dominance • Size • Age Old horses with poor teeth require specialised 'soft' easily chewed feed rations such as chaff and pellets, as hay cannot be effectively utilised.	Horses are best grouped according to their nutritional need and amount of feed they can consume. Feed lactating mares separately as they require more energy, protein and trace-minerals than resting horses or horses in light work. Heavily pregnant and growing horses require more calcium, trace-minerals and essential vitamins than mature horses. Horses can become uncharacteristically aggressive when competing for hand-out feeds and large, more dominant horses will drive others away from feed bins or hay racks.
2	Confine horses <ul style="list-style-type: none"> • Control pasture damage • Minimise soil erosion • Restrict energy expended A small paddock can be more easily re-established after the drought.	Choose a 'sacrificial' paddock or large yard to act as a holding area overnight to restrict access to larger pasture areas. This reduces the tendency for horses to 'walk off' condition in search of food, even when adequate hard feed is provided. A 'day yard' with an area of 1800 sq. metres (60m x 30m) is adequate for 2-4 horses. Smaller, sheltered areas reduce feed scatter by wind.
3	Provide Shelter <ul style="list-style-type: none"> • Reduce energy wastage • Minimise dust • Shield tree trunks/limbs • Ensure adequate drainage of urine, regular twice weekly manure pick-up and avoid mud when it finally rains 	Avoid sand yards as horses may ingest sand when eating leading to sand colic. Manure is easier to pick up in smaller areas than in large paddocks for a few horses and helps reduce smell, flies and organic build-up. A hard surface reduces dust that may be inhaled. Dust contaminated with Rhodococcus equi germs may cause lung abscess ('rattles') in foals. Protect trees with wire mesh to minimise ring barking, and check for damage from rubbing and root erosion under shelter trees.
4	Provide feeders <ul style="list-style-type: none"> • Reduce wastage – dampen hay and hard feeds • Locate feeders close to watering point to reduce walking and erosion Horses consume between 8-12 litres of feed/100kg bodyweight daily.	Introduce to hand feeding in a step-wise manner, especially if grains are included for working horses. Provide feed bins and feed hay in troughs to reduce wastage. Space feeders at least 2 horse lengths apart. Arrange paddock feeders in a horse shoe pattern rather than a straight line to avoid aggressive competition. Place 2-3 feeders away from main group for 'lower order' horses or new horses. Select safe feeders, preferably rubber tyres, or plastic tubs.
5	Minimise Feed Wastage <ul style="list-style-type: none"> • Dampen hay/chaff • Feed at ground level Chewing efficiency and digestion is improved by mixing in 'long chop' white chaff and feeding at ground level rather than in raised bins on a fence.	Small dust particles in hay are reduced by 70%, leaf loss by 45% and over all wastage by 30% when dry, stemmy hay is dampened by spraying and soaking with clean water. Feed at least 2 times daily to reduce competition and keep horses occupied to limit the habit of scavenging for food lost on the ground.
6	Minimise Injury <ul style="list-style-type: none"> • Safe fencing • Secure gates • Compatible horses 	Avoid barbed wire, as hungry horses will lean over fences to graze. Maintain fences to avoid escape and injury on roads etc. Secure gates with additional chains etc. Remove and relocate aggressive horses from a group. Use electric 'hot wire' fences where practical.

7	<p>Prevent Plant Poisoning</p> <ul style="list-style-type: none"> Remove growing weeds Trim overhanging trees/shrubs Do not feed lawn clippings or garden trimmings Control weed regrowth after rains <p>It is important to monitor weed growth after rain – weeds with top roots (capeweed, flat weed, Patterson’s curse) can regenerate before grass and smother useful pasture.</p>	<p>Chip out or spot spray succulent, potentially poisonous weeds (Patterson’s curse rosettes, flat weed, fireweed etc). Trim overhanging very toxic trees/plants (eg. Oleander, Yew, Flame trees, White Cedar berries, Croften Weed etc). Do not feed lawn clippings as they may ‘heat up’ as they ferment, are not chewed thoroughly, may contain poisonous leaves (eg Oleander) and other contaminants (dog droppings). Many garden plants (eg. Azaleas, poinsettias) are very poisonous – do not graze garden shrubs or feed garden prunings or weeds to horses.</p>
8	<p>Increase Feed Utilisation</p> <ul style="list-style-type: none"> Teeth care Regular worming Specific diets as needs change <p>Change diets, wean lactating mares early at 4 months, and feed separately</p>	<p>Check molar teeth for sharp edges – rasp as required – every 6 months on hard, dry feeds – reduces feed wastage, ‘quidding’ and ensures better digestion. Horses graze closer to manured areas (roughs) when feed is in short supply under drought conditions, greatly increasing uptake of worm larvae. The highest worm infestations by resting (hypobiotic) small redworms (cyathostomes) can remain dormant for 2½ years in cysts in the wall of the large intestine. They interfere with nutrient uptake and reduce feed benefit. Release is triggered by green grass intake after the break of the drought (green drought). Continue to worm regularly, including twice 4 weeks apart after break of drought to control released small redworms. .</p>
9	<p>Economise on feed costs</p> <ul style="list-style-type: none"> Select on ‘value for money’ Consider ‘alternate’ feeds Dilute costly feeds <p>Irrigation: It is better to water a small area well than to spread irrigation over a wide area. Irrigate a small area to allow lush pasture regrowth for strip grazing or hand cut green feed.</p>	<p>Lucerne hay at \$20 per bale remains the best value roughage to supply energy, protein and major nutrients with less overall wastage than grass or cereal hay. Pellets may be cheaper than ready mixed feeds, but examine nutrient levels and feeding rates when calculating cost per feed. Lucerne chaff may be diluted with 20% sunflower or oat hulls as alternative cheaper roughages.</p>
10	<p>Monitor feed Quality</p> <p>Add supplements to make up losses as feed and hay deteriorates during storage or poorer quality hay with lower leaf to stem ratio.</p> <p>Do not feed cattle, pig or poultry feeds to horses. Cattle feeds may contain Monensin which is very toxic to horses.</p>	<p>Vitamin A and E are essential vitamins required in the diet which are most likely to deteriorate by 80% over a 3-12 month storage of dry feed. Low leaf content reduces protein, calcium and trace-minerals in lucerne hay/chaff and chaff.</p> <p>Check hay for rodent damage, organic matter (botulism) and mould (musty fumes). Monitor left-overs to check which feeds are being left – change to a more palatable feed.</p>

Management After the Drought

Note- Hand feeding and higher prices will continue for 3-6 months after the break of the drought until pastures can re-establish and sustain grazing. Avoid overgrazing of regenerating pastures. Adopt a rotational grazing plan to allow pastures to re-establish and regenerate 50% more forage.

1	<p>Restrict Grazing</p> <ul style="list-style-type: none"> Allow plant regrowth Avoid diarrhoea <p>Horses may have to consume 50-100 kg short succulent grass to maintain themselves</p>	<p>Restrict access to grazing to 2-3 hours daily for up to 4-6 weeks to allow pasture growth. Short, green pastures have low dry matter levels (4%), with a high water content increasing by 4-6% per month as grass regenerates. It has little feed value and a high risk of ‘green scours’ from water overload.</p>
2	<p>Monitor Poisonous Plants</p> <ul style="list-style-type: none"> Check pastures for poisonous plants Nitrogen levels increase in the soil during a drought – speeds up weed regrowth which smothers pasture. 	<p>Horses will be attracted to fast growing succulent weeds, such as flat weed (cat’s ear) that are potentially toxic after 2-3 weeks of grazing (Stringhalt). Shift horses out of heavily weedy pastures and spray to control weeds – improves grass regeneration.</p>

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