



STOCKCLICK TRADING
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**Custom Made
Livestock Supplements**

STOCKCLICK TRADING'S GUIDE TO FEEDING SUPPLEMENTS



www.stocklicktrading.com.au

STOCKCLICK TRADING'S Sales Representatives travel to several hundred properties each year. During these visits they get asked many questions in regards to feeding supplements, most of which are very similar.

For this reason Stocklick Trading has compiled this "Guide to Feeding Supplements" in the hope that we can help answer some of these common questions.

If you have any further questions or require additional information please don't hesitate to contact one of our friendly team members:

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ABOUT STOCKLICK TRADING

Stocklick Trading manufactures both wet and dry season maintenance and production loose licks and molasses blends for all classes of cattle, sheep, goats and horses. Stocklick Trading's advantage over their competitors can be contributed to three main factors: 95% of supplements are custom blended to suit the customer's unique needs, dedicated sales representatives who make personal contact with our customers and quality raw materials sourced at competitive prices.

Stocklick Trading Mt Garnet was formed in 2000 by Bill McGuinness (Managing Director). Bill identified a need in the market for a state of the art production facility producing reliable, high quality livestock supplements customised to individual requirements in a timely fashion and at an economical price. Bill also believed that customers required quality advice based on experience which was not readily available at the time. Within the first three years demand exceeded the supply capability of the Mt Garnet plant and a second plant was opened in Charters Towers. A third branch was opened in Roma in July 2010. Today Stocklick Trading leads the way in supplement requirements across Northern Australia over three states.

Managing a supplement program is essential in achieving desired results and therefore Stocklick Trading is committed to providing sound, practical advice to our customers when establishment of a program is required. We achieve this by employing suitably qualified sales representatives based over four locations and a nutritionist. The company owns and operates two Robinson helicopters to service the vast territories of Northern Australia to ensure our customers have the best access to practical and technical assistance.

The future of beef and wool production in North Australia is continually being challenged by economic, environmental and quality demands. Stocklick Trading is committed to ensuring the grazing industries have access to leading edge supplement products which continually meet these challenges, while actively striving to lead the way in developing new products and systems that will provide a competitive edge for our clients.

THINK LICK... THINK STOCKLICK

FEEDING LOOSE LICKS



WHY USE LOOSE LICKS?

Dry lick feeding can be a very safe and cost effective way to give animals the desired amounts of protein and phosphorus they require. Below is a comparison between loose licks and lick blocks to highlight the advantages of loose licks:

LOOSE LICKS

Advantages:

- Cheaper per ton to buy
- Cheaper per unit of Protein and Phosphorus
- Can regulate daily intake (control of cost/head/day)
- Cattle spend less time at trough getting their daily intake
- Custom blended to suit specific requirements, country, etc
- Can deliver crude protein in weaner mixes
- Daily intakes easily monitored
- A number of different packaging options to suit management and facilities, i.e. Bag sizes

Disadvantages:

- Need to be managed correctly to minimise risk of urea poisoning
- Can be labour intensive

LICK BLOCKS

More expensive than Loose Lick

Cannot regulate intake

Cattle spend a lot of time at block trying to get daily intake
Cannot custom blend
Palatability issues

Limited packaging options

Lower risk of urea poisoning

As with any supplement source, daily intake is extremely important and needs to be closely monitored as feed intake determines how effective the supplement is and ultimately the cost of supplementation.

A supplement is ineffective and costly when intakes are lower than recommended as the animal is not receiving enough of the nutrients to meet their requirements. When intakes are higher than recommended as the animal is receiving too much nutrient which is excreted as the animal cannot use.

This is where custom blending of loose licks to animal requirements, country types, and changing weather conditions is the most advantageous as you can easily monitor daily intakes. If needed the supplement can be simply adjusted to ensure daily intake is regulated to the recommended levels, ensuring effective and economical supplement use.

Daily intake and cost can be monitored by keeping a few basic records and some quick calculations:

Records to keep:

- The number of livestock in the paddock
E.g. 500 head of Steers
- The amount of loose lick put into troughs
E.g. 15 x 30kg bags (450kg)
- The number of days taken to consume the loose lick
E.g. Put out on Monday, had to refill Saturday
5 days

Calculations to make:

Daily Intake = kg of lick / Number of days / Number of Head x 1000

E.g. = $450 / 5 / 500 \times 1000 = 180\text{grams/head/day}$

Cost per head = Cost of lick / 1000 / 1000 x Daily Intake

E.g. = $\$700 / 1000 / 1000 \times 180 = 12\text{cents/head/day}$

Always remember its the cost per head per day that is considered when feeding supplement not the cost per tonne of supplement.

DRY SEASON SUPPLEMENTS

During the dry months (typically June to December) in Northern Australia the pastures have reached maturity and ceased growing and as a result seldom sustain any type of young growing or lactating animal. This is because protein and energy levels in the pasture drop well below the animal's maintenance requirements and requirements of these classes of animals are much higher than that of an older or dry animal.

Therefore to correct this protein/energy deficiency and to encourage increased dry matter (pasture) intake and maintain a healthy rumen bug population a protein (mainly urea based) supplement must be fed to maintain animals during this dry period.

NOTE: A loose lick is used to only hold or maintain cattle during the dry season. Although we have seen on very few occasions where it will create live weight gain, the aim of a loose lick is to maintain and prevent major losses in body condition through the dry. This will enable the animal to enter the wet season in better condition, encouraging better conception rates, etc.

Urea and Dry Season Supplements

The majority of dry season supplements are based on urea as it is the cheapest form of protein available. Urea also helps to increase pasture intake and improve the rate of digestion which increases the amount of energy available to the animal.

Urea is a source of non-protein nitrogen. Non-protein nitrogen is nitrogen not derived from protein, hence they are nitrogen sources. Urea is broken down to ammonia and carbon dioxide in the rumen. The ammonia is used by the rumen microorganisms to build their own bodies producing microbial crude protein. The microbes are washed from the rumen and the microbial crude protein is digested in the abomasums (true stomach) with the resultant amino acids being absorbed in the small intestine.

As a guide, adult cattle require approximately 60 grams of urea/head/day and half that for weaners (30g/head/day). Sheep should require approximately 8—10 grams of urea/head/day.

Urea intakes higher than those recommended and incorrect use of urea supplements can lead to excess ammonia in the animals system, which could possibly result in Urea Poisoning.

This reinforces the point that daily intakes need to be closely monitored and urea supplements carefully managed.

Dry Lick Feeding Guidelines:

- Do not feed to STARVING stock. Unlimited access to ample dry pastures is required.
- If feeding dry lick for the first time, apply a layer of approx 7.5 - 12cm of salt over the dry lick.
- Never let troughs go empty, especially later in the season. This is very important with high urea content licks. If troughs do run empty salt the lick as above.
- When first early storms come, put a layer of salt over all dry licks. Cattle tend to go walkabout for up to a week and when they come back they will have a craving for lick.
- Start feeding earlier in the season rather than at the end of the season, before they have already lost weight and developed cravings.
- Provide adequate trough space to avoid "bullying". Don't put troughs too close to water, especially when feeding sheep. Place troughs at least 100m from watering points.
- Don't start by feeding a very palatable lick then change to a high urea lick. Always salt lick if changing mixes.
- When changing from blocks to a loose mix, cover the top of lick with a few inches of salt to stop any potential gorging.
- If paddocks are boxed up during the dry season or new animals are introduced to the paddocks, salt the mix as above until a pecking order is established.
- Visually check your lick's consistency. Some ingredients can separate during transport. It doesn't hurt to lightly rake the top of the lick in the trough if needed.
- Most weaner mixes contain Rumensin, this can kill horses and dogs if consumed. Read the bag label to see what ingredients

are used.

- Don't feed dry licks with any molasses urea mixes.
- Dry Lick can only be fed with good roughage, otherwise an energy supplement is required (Whole Cottonseed, Corn, etc).

Urea Poisoning

Excess ammonia from the rumen is absorbed into the blood stream and converted back to urea in the liver. Some of this urea is recycled into the digestive system via saliva and the excess is excreted in the urine. Urea poisoning occurs when the level of ammonia in the blood is above that which can be converted back to urea in the liver. This often occurs when urea intake is faster or at higher levels than the animal and the microorganisms are accustomed to.



Symptoms of Urea Poisoning:

- Severe stomach pain
- Proppy gait
- Muscular tremor
- Slow, deep and laboured breathing
- Weakness and collapse
- Bloating
- Frothing at the mouth
- Regurgitation of rumen contents
- Violent struggling just before death

Urea poisoning affects the animals very quickly and animals usually die very close to the source of urea.

Treatment:

As poisoning occurs very quickly, treatment is often too late and therefore ineffective. However, if you come across an animal in the early stages of urea poisoning it is recommended to:

- **Drench immediately with 4 to 8 litres of a mixture of equal parts water and vinegar.**

Wet Season Supplements

During the wet season, energy and protein in pastures are high and therefore animal intakes of energy and protein are high which allow for rapid growth and production (i.e. Milk and reproduction). Related to protein and energy intake is the animal's phosphorus requirements. Hence during the wet season when protein and energy intakes are high the need for phosphorus is markedly increased.



Phosphorus is required by the animal's tissues and fluids and is involved in many body functions such as energy transfer reactions, and therefore, it affects every activity in the body, including growth (e.g. Weight gain) and especially reproduction.

However, approximately 70% of Northern Australia is phosphorus deficient and therefore animals aren't producing as they should because they are phosphorus deficient.

Symptoms of phosphorus deficiencies are:

- Depraved appetite - animals chew bones, twigs, bark and other strange objects. Bone chewing can also be a habit and can be present even if phosphorus is not deficient.
- Poor growth rates - research results indicate 10 -20% reduction in growth rates
- Low reproductive rates - calving rates can be reduced by up to 40% on acutely (severely) deficient country.
- Peg leg - Stiff, proppy gait and arched back.
- Rough, coarse coats and cattle in poor condition, especially lactating breeders. Soft, weak bones.

Therefore during the wet season animals require additional sources of phosphorus such as phosphorus based wet season supplements to achieve growth and reproduction performance.

For cattle wet season supplements should achieve a daily phosphorus intake of 5 - 10grams/head/day, depending on the severity of the deficiency. Sheep have a lower requirement for phosphorus as they efficiently utilize phosphorus because they recycle a large proportion of phosphorus, hence deficiency is not commonly seen.

Feeding Molasses



Molasses is an energy supplement ideal for situations that require increased growth rates, spike feeding or survival rations in the hardest of dry seasons.

Maintenance Molasses Mixes

Maintenance molasses mixes are used to accelerate weight gain or reduce weight loss as energy and protein levels in pastures deteriorate beyond acceptable levels.

Production Molasses Mixes

Production molasses mixes are designed for maximum growth and/or weight gain over shorter time frames. A viable alternative for finishing animals prior to market or ensuring maximum growth rates at and post weaning.

Consult one of Stocklick Trading's sales representatives or nutritionist to discuss which molasses mix is right for your needs.

Molasses Feeding Guidelines

- Do not feed to starving stock. Unlimited access to ample dry pastures is required.
- If feeding a molasses urea mix for the first time apply a thin layer of approx 12mm of salt on top of the product.
- Do not feed animals straight molasses and then a molasses urea mix. Salt the molasses if changing between mixes.
- Position troughs at least 100m away from watering points
- Once started feeding molasses mixes, never let troughs go empty and avoid breaks in feeding, as animals may gorge the product when reintroduced.
- Provide adequate trough space to avoid "bullying". A rough guide is max 50hd to 350-450L troughs, Max 80hd to 500-750L troughs
- If mixed properly molasses urea mixes are rainfast and water laying on top of product will not be a problem. Do not mix the water into the product.
- Should rain showers be received and animals go off the molasses mix, over consumption can occur when animals come back onto supplement, apply a layer of salt on top of the molasses mix.
- Molasses mixes containing Rumensin should not be stored for more than 3 to 4 months. After this period the Rumensin will start to settle out.
- Molasses mixes containing protein meals and production mixes cannot be stored in tanks as the ingredients will settle out.
- Do not feed molasses mixes containing urea and Rumensin to horses, pigs, goats or domestic animals.

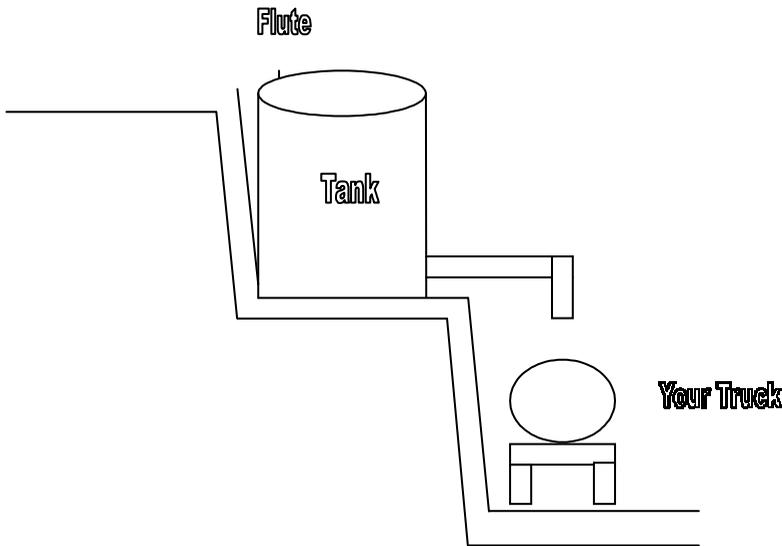
Setting Up for Molasses Feeding

Unlike feeding loose mixes which only require troughs, molasses feeding requires storage infrastructure and equipment. Below are some options available for molasses feeding programs.

Gravity Systems

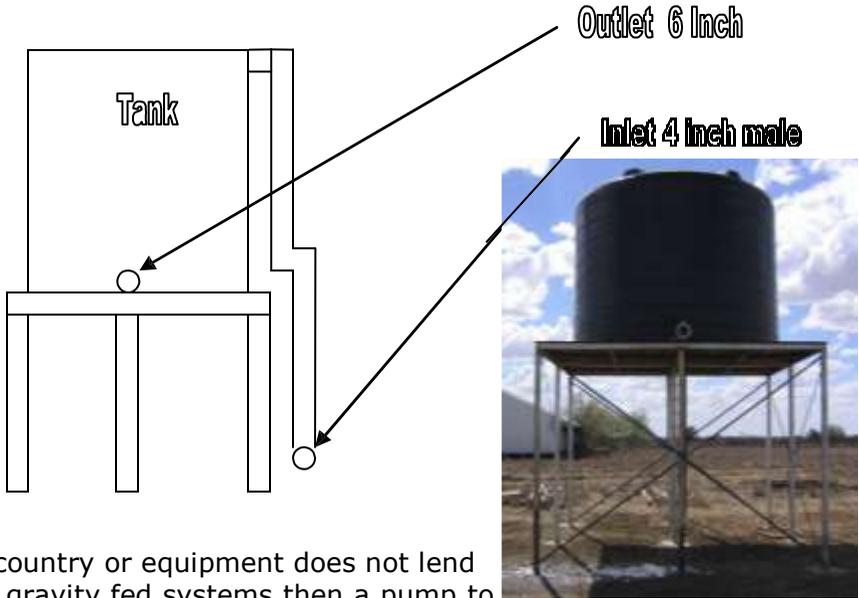
Gravity setup is always going to be most ideal, as long as the area is suitable, as you're not reliant on pumps. This means being able to gravity feed into your storage and then gravity feed into your mixer/truck.

Ideally, the delivery truck will be able to park beside the storage tank with the outlet on the driver's side and unload the molasses mix down a chute into the tank. Usual unload time is between 15–30 mins per trailer (25 ton). Suitable tanks are ex steel diesel tanks as they will be partially covered in earth.



Note: The walls must be able to hold the weight of the molasses and the equipment.

Pump to Gravity Systems



If your country or equipment does not lend itself to gravity fed systems then a pump to gravity system is best. This system requires the storage tank to be on an above ground stand, high enough for your mixer/truck to load out from underneath via gravity feed. If the stand stands approximately 5 feet off the ground pumping will be fairly quick, higher than 10 feet off the ground pumping becomes quite slow.

This system also requires a separate 4 inch line and tap going into the tank for filling purposes, which is accessed from the ground, and equipped with a 4 inch male cam lock fitting to connect onto the delivery trucks pump. The gravity outlet from your tank should be as large as allowable, 6 inches is good size to allow for fast gravity feed into your mixer/tank.



Poly molasses tanks are suitable for this system. If you only require a small amount of storage a 5800 gallon tank which holds approximately 36 ton of molasses is most suitable. Therefore, the stand needs to be built to accommodate this weight.

Pump Systems

If you would prefer to place your storage tanks on the ground then you will require a pump driven by either a PTO, electric or diesel/petrol engine. This pump is required to transfer molasses mix from delivery truck to storage, then from storage to your mixer/truck. Again poly tanks are suitable and outlets greater than 3 inches for faster pumping.



Paddock Drops

Paddock drops are an alternative if you do not require storage on station or feeding molasses mixes that do not store in tanks, such as molasses production mixers. The only equipment required is troughs, as the molasses delivery truck drives around the paddock and empties the molasses mix into troughs situated around the paddock. However, paddock drops are only suited to country that is easily accessed by truck and trailers.

Guide to Trouble Free Paddock Drop:

- Have well graded pad for truck to drive on with ample turning room with no sharp roots or rocks or sharp gullies or corners and any vegetation which could scratch truck must be cleared (above & sides).

- Troughs are to be set up as close as possible to all weather roads, preferably on the driver's side and strategically placed so unloading times are kept reasonable.
- Ensure there is a sufficient number of troughs to handle 10% more product than the truck carries. This enables us to deliver follow up loads before product runs out.
- Calculate intakes before hand so realistic turn around times can be determined.
- Monitor trough levels & order next load 7 to 10 days prior to running out.
- If truck is to deliver somewhere other than homestead, provide clear & precise directions and preferably a mud map.
- Must have someone allocated to help unload every load.

Note: A delivery truck will not leave a depot unless station owner/ manager has been contacted and can guarantee truck will not have problems manoeuvring around the paddock or get bogged.



Troughs

Troughs are a very important aspect of feeding which can turn the job into a once a day job or a once a week job. Sufficient storage in the paddock whether it is for molasses or dry lick should last at least a week. This frees up labour and provides a safe guard in case you can't get back out in time to fill troughs for whatever reason.

Troughs should be placed at least 100m from watering points. Once animals are on the lick, encourage them to other parts of the paddock by moving the troughs to other unused areas of your paddocks, this will encourage better paddock utilisation.

Troughs for Loose Licks

The most important thing for loose lick troughs is to ensure water can drain away easily, by cutting slits in both the sides and bottom, to minimise risk of urea poisoning. Keeping troughs full will also minimise the chance of water pooling.

The most common troughs used for loose licks are half 44 gallon drums cut either horizontally or vertically. Other troughs used are super single or tractor tyres with the side walls cut out, ton bags, old concrete culverts and hollow logs.



Troughs for Molasses Mixes

The most common troughs for molasses mixes are plastic round or rectangular troughs. With molasses troughs you need to ensure there is grip on the bottom so any animal that may fall in can gain grip to get out. Some troughs come with grip moulded into the bottom, for those that don't, you can lay weldmesh.

As a guide a 750 litre trough will hold approximately 1 ton of molasses mix.

Some people also insert limiters into the trough when feeding molasses to regulate intake. These can range from manufactured Ezi-lickers to home made floating lids out of weldmesh and PVC plastic pipes. The idea is that they float on top of the molasses and cattle have to actually push down on them to get to the molasses mix.



Conclusion

Loose licks and molasses mixes when used correctly are safe and economical. The risks associated with the use of these products can be minimised by following the simple guidelines from this booklet and when unsure contacting one of our sales representatives or nutritionist.

We hope this "Guide to Feeding Supplements" was of some valuable help.



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Conditions of Sale

The use of dry lick supplements is beyond the control of the manufacturer. No conditions or warranties are given and none shall be implied as to its suitability or fitness for any particular purpose. The manufacturer accepts no responsibility for any consequences whatsoever from the use of these products.

Store licks under cover in a cool and dry place. These products have been custom mixed to your requirements for cattle. Do not feed to starving stock. Ensure access to a good supply of dry feed. Sheltered troughs are recommended to prevent water contamination and spoilage. Do not locate lick troughs too close to watering points.