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Best Management Practices for Herd Homes® Systems

Background

This document is designed to advise new and existing **Herd Homes®** Owners and their managers on best practices for the effective management of their shelters.

Herd Homes® shelters are built to various lengths but to the same fundamental design. It is how they are managed which determines their perceived success or failure.

It was recognized that there was a need to provide guidelines to help prevent possible environmental and animal welfare issues that could arise through mismanagement

Purpose

The purpose of this document is to provide guidance and advice to new and existing **Herd Homes®** users to enable them to maximize the benefits of this system whilst minimizing animal welfare issues and ensuring that environmental impacts are positive.

Herd Homes® shelters are designed to provide shelter for animals when weather and/or ground conditions are unsuitable.

They are not recommended as animal housing for extended periods when outside conditions are favourable

Outcomes

No two farming systems are identical and it is recognized that the intended uses for these shelters will vary significantly.

There are certain fundamentals that need to be applied to ensure the wellbeing of all animals using these facilities and the protection of the environment. **Herd Homes®** Systems Limited strongly recommend that all **Herd Homes®** Owners/users follow the guidelines and recommendations outlined in this document and if in doubt to contact a **Herd Homes®** Systems Limited representative for clarification.

This document is a guideline that will be regularly updated.

Through the adoption of these procedures and guidelines by users, the monitoring of use by owners through user group days and ongoing support from **Herd Homes®** Systems Limited, it is envisaged that **Herd Homes®** Systems Limited will continue to be a leading provider of farming solutions that are profitable and are both user friendly (animal and farmer) and environmentally sustainable.

BEST MANAGEMENT PRACTICES

for

HERD HOMES® SHELTERS **Dairy, Beef and Young Stock**

Successful Management

The successful management of a **Herd Homes®** Shelter will require flexibility on the part of each individual operator.

Whilst these shelters will work successfully under a whole range of farming management systems, the reluctance to be open to change, or be flexible with management styles used, may compromise the effectiveness of the shelter(s).e.g.

- If cleaner cows are wanted, then more bedding and/or fibre in the diet may be required. Stocking rate may need to be reduced
- If it is too cold or windy, then the site may be requiring more shelter.
- If a cow does not settle or is victimized in the **Herd Homes®** Shelter then she should be removed.

Following the guidelines and principals outlined in this document will assist with each operator developing a successful management system for their own operation.

This system should enable the user to gain productive benefits whilst having a positive environmental impact and, without compromising animal health and welfare.

Herd Homes® Systems Limited encourages **Herd Homes®** Users to communicate both positive and negative experiences with their systems, to **Herd Homes®** staff.

It is from this information that improvements can be made, bad practices avoided and the full benefits of this system realized.

The major benefits available when farming with a **Herd Homes®** Shelter are that they will protect the four key components of farming, **pasture, soil, stock** and the **environment**. The outcomes of this will be happier healthier stock, more quality pasture, improved feed utilization, increased production and profit and, less stressed farm managers and staff.

If you are not receiving some or all of the above benefits from your **Herd Homes®** System then you should be contacting your Regional Manager to discuss performance issues.

Disclaimer

*This "Best Management Practice" document, is formulated by **Herd Homes®** Systems Limited from the 'best' available information available at the time of each update.*

It is the combination of feedback from users, research work and observations. It will be regularly updated as new information becomes available.

***Herd Homes®** Shelters must be used in compliance with relevant Regional Government Rules and/or individual Resource Consent conditions*

***Herd Homes®** Systems Limited take no responsibility for the misuse, misinterpretation or misunderstanding that may result from guidelines herein.*

*Users should constantly monitor effects of **Herd Homes®** Shelter use and seek advice from relevant experts if they have concerns.*

Maximum recommended stocking rates (*refer chart below*)

H/H Size	Stand off period / purpose								
	<12 Hrs			>12 Hrs <24 Hrs			> 24 Hrs - Calving - Milkers		
	F	FX	J	F	FX	J	F	FX	J
60 mtr	200	210	220	160	175	190	130	140	150
48 mtr	160	165	170	130	140	150	110	116	125
42 mtr	140	145	150	115	125	135	90	100	110

1. 3 - 3.2 sq/mtrs/cow for feeding or standing off less than 12 hours.
2. 3.5 - 4 sq/mtrs/cow for standing off for longer periods
3. 4.5 - 5 sq/mtrs/cow for milking cows, calving and extended periods of standing off. (Inside for more than 24hours)
4. Signs of over stocking can include:
 - Very dirty coats (can also be a dietary and/or bedding issue)
 - Floor never dries (as above), this could be a climate issue.
 - Stressed, unsettled cows
 - Split teats
5. Animals should only be housed for extended periods when unsuitable weather and/or ground conditions exist.

Water

1. Ensure stock have access to clean water at all times. (4 troughs per 60 mtr **Herd Homes®** Shelter)
2. Check regularly that troughs have not been contaminated with feed
3. Ensure that if troughs were to leak that water cannot flow back into **Herd Homes®** bunkers

Initial Introduction

Cows need to be trained to accept their new environment. During the introduction period they will initially stay standing, particularly cows that have been stood-off before, expecting that they will be let out onto pasture where they can lie down.

1. To encourage cows to lie down in the shelter, provide a small amount of bedding (straw or old hay). Reduce cow density to approximately 5sq mtrs/cow (120 cows per 60 mtr **Herd Homes®** Shelter)
2. Leave cows in the **Herd Homes®** Shelter for 3-4 days ensuring they are provided with adequate food (introduce to new diet before bringing inside) and water and regularly monitored.
3. After this training period cows will lie down, as they do on pasture.
4. Cows will walk tentatively on the slatted surface until they become familiar with it.
5. Initially, put cows in just before dark when slightly hungry. With plenty of feed available in the **Herd Homes®** Shelter they will settle quicker.

Exercise

1. Ensure that animals that are being inside for extended periods are let out for exercise even if it is a walk up the race
2. Use this exercise to observe for feet and general health issues (look for cows at the back of the herd who are not usually there)
3. Exercise is very important for the cow in preparation for calving
4. Not all cows react the same; a few cows will not prosper if the Shelter is used for long periods per day over several months. These cows will need to be identified early and removed.

Feet and legs

1. Most users are finding a reduction in lameness
2. Lameness occurring in well-managed **Herd Homes®** Shelters is rare. If occurring check the following:
 - Entry and exit points to **Herd Homes®** Shelter
 - Transition area from track metal to concrete
 - Encourage build up of floor cover (add straw)
 - Straw fibre in diet. Firmer stools. (Good for cow health and floor cover)
 - Pushing or fighting for feed
 - Unsettled through: too many empties, bossy cows or newly merged herds.
 - Rain or cold winds driving in will reduce the cow's dry warm area making the cows mill, resulting in leg and feed issues.
3. Early detection and action is a must. Draft out lame cows and treat if necessary. Leave out of **Herd Homes®** Shelter until fully recovered. Swelling will often disappear, without treatment, over 2-3 days

Winter

1. Monitor floor condition and adjust diet and add bedding accordingly. Straw or hay will be necessary in the cold damp climate.
2. Use **Herd Homes®** Shelter to minimize pasture and soil damage and to look after pasture cover (control grazing residuals)
3. Bring cows inside during periods of wet and/or cold weather (smaller and lighter cows are more prone to chill). **Herd Homes®** Shelter are up to 6 degrees warmer than other shed designs.
4. If there is insufficient area for all cows, rotate so all cows get sometime inside and sometime outside on pasture
5. Downer cows can be rolled onto a tarp or plywood and moved to a suitable part of the **Herd Homes®** Shelter (extra bedding) or taken out
6. Teat spraying can be done with knapsack while cows are feeding.
7. If removing grass from the cow's diet, be sure of your feed quality and get professional advice, as effect from unbalanced feeding is hard to pick.
8. Avoid sudden diet changes – transition over a two to three week period.
9. Clean the plastic roof

Calving

1. Reduce stock number giving the calvers plenty of room
2. Prepare floor – straw/old hay
3. Divide **Herd Homes®** Shelter with double gates to springer mob size
4. Hinge second gate at entrance to form calving race to assist with difficult calvings
5. If calving small jerseys, ensure plenty of bedding to prevent the odd calf getting a leg through the slats
6. Presume no calf has fed – ensure all calves receive first colostrum milk within 4 hours of birth.
7. Tag calves on a regular basis

Spring

1. Colostrum mobs settle well when put in **Herd Homes®** Shelter.
2. Ensure milkers are given plenty of room
3. Feed and water according to mob requirements
4. Ensure regular teat spraying is done to prevent mastitis
5. Watch for contaminated silage or old hay spores pulled into the **Herd Homes®** Shelter as this could increase Thermodurics
6. Again no sudden dietary changes when moving calvers to milking mob.
7. Watch for cows that, through calving at feeding time, have missed a meal. These cows may get milk fever, as there will be no other feed available.

Summer

1. Heat stress reduced with 'shade cloth' ceiling
2. Allow milkers to return to **Herd Homes®** Shelter during the heat of the day
 - Avoids overgrazing
 - Reduces heat stress on cows
 - Feed supplements in **Herd Homes®** Shelter (no wastage, no pasture damage)
 - Let the cows walk before the day gets hot
 - Inside temperature up to 10°C cooler than outside.
 - Reduces trampling damage
 - Reduces biting flies (less sweat & cooler coats)

Autumn

1. Use of Dry cow therapy and Teatseal have proved beneficial after drying off
2. Use to extend rotation and lactation
3. Shelter from autumn rain and storms
4. Use to maintain good grazing residuals
5. Protect soil structure and avoided compaction as it is created when the ground is damp not saturated.
6. Pull back shade cloth and tie in a sausage

Young Stock

1. Very good weight gain results from wintered yearlings
2. Need to reduce numbers in the **Herd Homes®** Shelter as animals gain weight and increase in size
3. Activity increases as yearling heifers start bulling. Monitor feet, crowding issues, victimizing etc.
4. Good results from farmers using **Herd Homes®** Shelter to rear calves. Extra bedding is required. Straw/hay bales used as partitions provide extra shelter

Feeding

1. Watch whilst cows are feeding. Ensure all cows have access to feed
2. Use **Herd Homes®** Shelter to preferentially feed mobs. (Non cyclers, thin, old, sick etc) Works well in conjunction with automatic drafting systems.
3. Ensure feed is put out before cows are brought inside where possible.
4. Ensure feed is spread evenly along entire length of **Herd Homes®** Shelter
5. Remove any contaminated feed from feed strip areas

Shelter / Storm wind protection

1. Good wind shelter will reduce the effects of driving rain into the **Herd Homes®** Shelter.
2. Wind protection will increase the life of the plastic and improve stock performance in the **Herd Homes®** shelter.
3. Watch for wind disturbance from other structures or trees, avoid wind tunnels
4. Artificial shelter can be very effective but professional advice is necessary.
5. A straight wall of shelter will at the ends create disturbed intensified airflow around behind the shelter. This can be alleviated by sweeping the ends back
6. Earth walls with shade cloth on top and wings on the ends is effective shelter
7. Shelter should be at least as high as the **Herd Homes®** Shelter
8. Over protection, as in solid shelter, will reduce the drying effect of good airflow that is essential. The drying in the winter and cooling in the summer must be kept in mind.
9. Use trees that do not shed debris and can not fall on the structure
10. Erect artificial shelter prior to roof construction if possible
11. Deer gates with shade cloth can add extra shelter to the ends
12. Wind effect is often more obvious after the **Herd Homes®** Shelter is built and wind protection may need to be added or altered.

Bunkers

1. Effluent must be applied to pasture in compliance with relevant Regional Rules and/or individual Resource Consent conditions. Check with your Regional Council.
2. Record spreading rates, dates and paddock numbers.
3. Water entering the Bunkers, from rain and leaking troughs, can be a problem
4. Do not overfill bunkers. Regularly check effluent level. Plan ahead.
5. Bunkers should be emptied and applied to pasture when conditions are favourable. i.e. soils are not waterlogged, heavy rain is not forecast and strong winds (potential to upset neighbours with odour) are not predicted.
6. View bunkers as 'fertilizer bunkers'. As such, do not wait until they are full but apply valuable nutrients at opportune times
7. Do regular soil and pasture analysis
8. Effluent is likely to be wetter if **Herd Homes®** Shelter has had regular use.
9. Ensure gear is on site before removing grates
10. Apply at a maximum of 10 tonnes/ha
11. Double check that all grates have been replaced, aligned, checked for gaps and undamaged, before returning cows to **Herd Homes®** Shelter after emptying bunkers
12. Have effluent tested. Know what nutrients you are applying.
13. Spread fertilizer ('missing nutrients') in the **Herd Homes®** Shelter. Cows will work it through the grates. Saves 'supplementary spreading'.
14. Decanting systems are improving to collect urine
15. **Caution.** *Gaseous emissions can be hazardous. Avoid putting your head below grate level when emptying.*

Roof and Eyebrows

1. The cleaner the roof the more light will come in. (essential for killing bacteria)
2. When cleaning the roof avoid using product containing trisodiumphosphate
3. Clean water, with no additives, is the best in most situations
4. 'Wet and forget' has been approved for use.
5. Dust from tracks and palm kernel will cause roof to get dirty
6. Lichen damages as its roots penetrate the plastic
7. Small tears need repairing on both sides with recommended tape
8. Inspect annually for damage, flapping, loose areas etc
9. Ensure vents are not left half open as water collection on vent can sag and break plastic
10. Ensure any damage to eyebrows is fixed immediately. This includes missing screws and loose iron.