

Managing and Reducing Straw Usage



**Farm
Advisory
Service**

National Advice Hub

T: 0300 323 0161

E: advice@fas.scot

W: www.fas.scot

With straw supplies set to be tight and predictions of increased prices, straw is looking to be a scarce commodity. There are a number of steps farmers can take throughout winter housing to ensure straw stocks go further by making best use of available bedding while also reducing the potential wastage of straw.

Key Steps

- **Prioritise**
- **Reduce waste**
- **Storage**
- **Reduce demand**



Make straw supplies go further this winter

A simple way to reduce the amount of straw needed is to reduce stock. Aim to concentrate on taking productive stock through the winter and clear out passengers. There are several ways of going about this.

1. Scanning cows and heifers. Scan breeding animals early to determine who is in calf. Clear out and sell culls. A cull cow will use up valuable forage stocks as well as straw for bedding and feed.
2. Sell stores lighter. Instead of keeping store cattle on farm to increase sale weights get them away lighter if straw supplies are looking tight. There is also the option to sell weaned calves straight off their mothers. Dry cows will have a lower bedding priority than cows sucking calves.
3. Reduce finishing time. Although it may seem counterintuitive feeding finishing cattle (heavier store cattle) a more intense straw and concentrate ration results in a shorter finishing time. By feeding more intensively cattle spend less time on farm whereby the effect is less forage and straw is used. Not only will less straw be used overall but silage supplies will be freed up.

To help with managing straw prioritise bedding for different types of stock on the farm. Young calves are a priority and must have clean dry bedding to lie down among to maintain their body temperature. If calves have sufficient bedding they will nest down trapping a layer of warm air around themselves keeping them warm helping to reduce the risk of pneumonia. Well bedded calves are less likely to be exposed to diseases carried in dung and urine such as scour, joint ill and Johne's disease. Dirty, wet bedding encourages the growth of disease organisms so trying to economise on straw is a false economy leading to potential disease problems which are far more costly. Savings can be made by creating a calf creep/refuge area with cows being less well bedded.



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Cows and heifers within 2-3 weeks of calving are also a priority for straw to keep teats clean. Dirty teats increase the risk of dirt/muck being consumed by the calf when taking its first suck. Dirt in colostrum reduces absorption of the critical antibodies within the colostrum.

Finishing cattle close to slaughter should also be considered as a priority. The dirtier the bedding inevitability the dirtier and wetter the coat of the animal becomes. Dirty livestock arriving at slaughter houses are a potential contamination cause. There may be financial penalties if a carcass was to be contaminated during hide removal as well as costs if the animal needs to be clipped before processing at the abattoir.

Store cattle are the lowest priority of all cattle with autumn calved cows and calves priority reducing as winter progresses and their calves get older and more resilient.

Minimise straw wastage

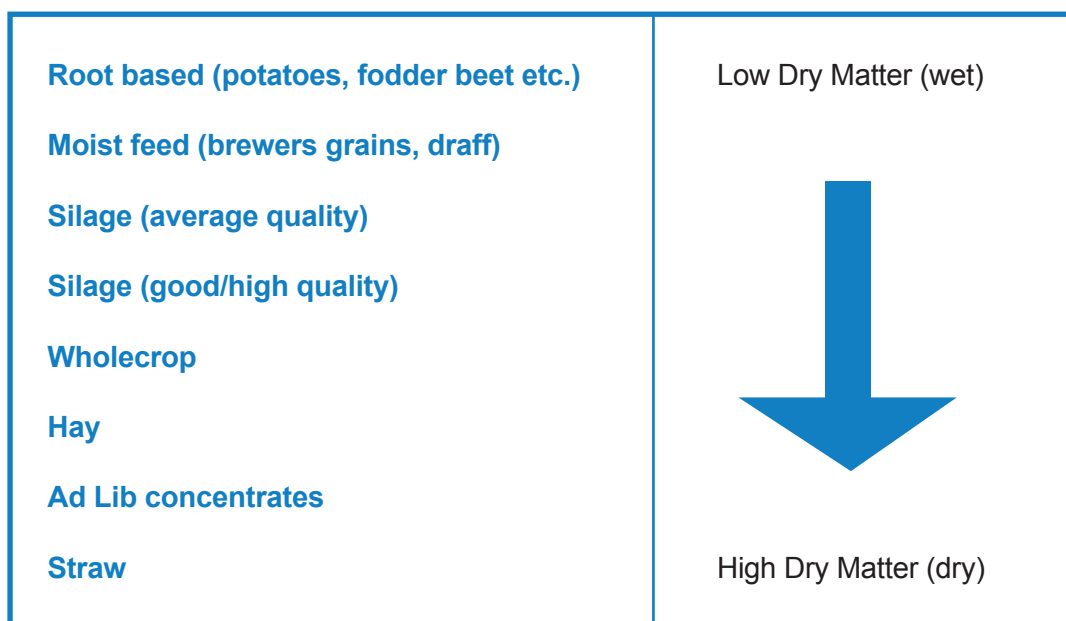
To help minimise wastage this winter go back to the basics to make sure you are getting the most out of bedding straw.

Scrape feed passes	Up to 40% of dung and urine is excreted while cattle are feeding. Scraping feed stances will minimise the amount of straw which is dragged back into the lying area.
Shed Repairs	Ensure water is not getting into the straw bedded area. Check water troughs, guttering, downpipes and roofs for leaks.
Ventilation	Make sure buildings are as well ventilated as possible. Good ventilation will eliminate damp air within the shed, which helps to keep the bedding dry. Livestock health will also be improved. Signs to look out for which indicate poor ventilation are cobwebs and condensation on the underside of roofs.
Method of Bedding	Bedding little but often (possibly with a bedding machine) may reduce overall straw usage. Less straw is used by rolling out a bale than simply taking nets off and letting cattle bed the area themselves.
Drainage layers	Using a courser straw (rape or pea) as a base layer under traditional straw varieties in loose bedded courts will aid drainage. Urine drains down through the straw to the base layer keeping the top layer drier and cleaner for longer. Similarly woodchips act as a good base layer.



Rations

Another important consideration when trying to manage straw supplies is ration type. Bedding requirements are higher for animals on silage based diets due to wetter dung produced. Stock fed on concentrate or straw based diets in comparison have drier dung thus reducing the straw for bedding requirement.



Unnecessary intakes of salt could result in increased drinking of water and more urine being produced which will increase bedding requirements. Make sure that minerals are not overfed particularly those with salt.

Avoid feeding free-access minerals or salt licks, feed minerals formulated according to the type of diet and at levels appropriate to the type of stock.

Straw Storage

Straw stored outside in stacks (uncovered) or left lying out in fields is not uncommon. Straw left sitting in the field is exposed to the winter weather and is often soaked by rain water as well as soaking up ground water. Wet straw has very little absorbency bales that have been exposed to a lot of rain will be of very limited use as bedding. Making matters worse, wet straw is also at risk of rotting and/or developing moulds which are a potential risk to animal and human health.

Wet straw is only approximately 10% as effective as dry straw for bedding livestock. It's worth noting that a large proportion of the straw within a round bale is in the outside layer (15-20% of a soft centred bale can be in the outside 4"). The result is that more straw is needed to 'dry' up the wet bedding and ultimately achieve the desired effect of giving stock a dry bed.

There are also potential health issues with using wet/moist bedding which adds moisture to the atmosphere and increases the risk of pneumonia as well as the increase risk of disease in the shed. If you are sitting with wet straw which is intended for bedding, this should be used to bed animals with the lowest priority on farm. If you have wet straw sitting use it sooner rather than later.

Wet straw can be avoided if straw is stored correctly. Bales can be stored cheaply by erecting a simple shelter with telegraph poles and tin sheets or covering the stack with a thick plastic sheet (similar to that used to cover a silage pit). Bales can be used on top to weigh the sheet down and keep in in place. Sacrificing the few bales on top of the stack would be worth it if straw was kept dry. Another option is tube lining or wrapping a few layers around the bales which can be down for a relatively lost cost.