



"FiveF"

"Forages and Farm Feeds For the Future"



Alkagrain Production – "Do's & Dont's"

Alkagrain production is generally straightforward and 10's of thousands of tonnes have now been successfully produced across all of our markets. Whilst harvesting a mature crop, processing it in a crimping machine, mixing Home n' Dry pellets with it, sheeting well, keeping it out of continuous rain fall are easy to achieve; we have come across some situations where questions arise hence these Do's and Don't's to help users in future.

Do Use Mature Grain.

To maximise your yield of starch and grain dry matter the grain needs to be fully mature – combine stage. It may not yet be dry but it needs to be mature. The crop and the seed coat will not be green. Immature grain will contain sugars that will react with the released ammonia and this will reduce effectiveness of preservation.

Note that if grain has sprouted the system will cope with some sprouted grain though increased pellet application rate will need to be higher (see below) and the grain will be browner or grey in colour.

Do Process The Grain Well.

The grain needs to be mechanically damaged, otherwise grain will pass through the animals fed without being digested. Most mobile crimpers / mills are capable of breaking mature grains. Best machine work rates are typically gained when the machine is fitted with 2mm Fluted Rollers.

Do Check That Grain Is Effectively Processed

It is a good precaution to periodically check the processed grain by observation to ensure that the grains are sufficiently damaged.

Do Mix Pellets Effectively

An even mix of pellets through the batch is important for effective preservation. The wetter it is the more important this is as Ammonia preservative travels shorter distances in wet grain.

Do Use At Least The Minimum Application Rate Of Pellets

We have carefully calculated and tested the amounts of pellet required to give good preservation of the grain. Most problems seen in practice are associated with pellet application rate being too low for the circumstances and lower than recommended.

Remember that, unlike any other grain treatment, every bit of Home n' Dry is a feed material and that will be available to feed to your livestock during the feeding season. This protein content is cost competitive with other protein sources so there is no need to run the application rate low to save cost.

Note sprouted grain requires minimum application rate of pellets to be increased by at least 20% (see over)



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With wetter (> c22% Moisture) grain it is helpful to either spread additional pellets over the surface or double application rate of pellets in the top 30cm or so of the storage bunk. (Past experience shows that in these cases the extra pellets prevent browning as otherwise the moisture tends to condense under the sheet and dilute the Ammonium Salts)

Pellet Inclusion Rate

Wheat (& All Grains Excl Barley)

Barley

Crop Moist %	Min kg	Max kg	CP Added %	Crop Moist %	Min kg	Max %	CP Added
>25	35(45)	60	4.35 – 8.75	>25	30(35)	50	4.35 – 7.25
25 – 17	30(35)	45	4.35 – 6.50	25 - 20	25(30)	35	2.00 – 5.10
<17	25(30)	30	3.65 – 4.35	<20	Call For Advice		

*Use Minimum Figures in brackets if grain is up to 10% Sprouted otherwise call for advice
Higher levels can be used in certain circumstances to increase protein levels – please call for advice.*

Do Not Consolidate In The Clamp.

Because the preservation requires Ammonia to migrate into the grain do not consolidate into the store. This is particularly important as the grain gets wetter. Grain over 25% Moisture should be clamped no higher than 1.5m (5ft) to prevent excess consolidation at the bottom.

Do Sheet The Crop Well

We need to keep the Ammonia in the clamp in the first couple of weeks so side sheets and a good quality top sheet are important. After this time the Ammonia will stabilise as Ammonium salts and the clamp can be opened for feeding, moved or even unsheeted completely (INDOORS ONLY!). (Unsheeting indoors after 5 or 6 weeks allows the moisture in wetter crops to dissipate however the surface needs to be protected from rain.)

After opening it is important that the sheet prevents water running over the clamp surfaces as this will wash away the Ammonium Bicarbonate preservative and lead to spoilage.

Do Have The Material Analysed By A Laboratory That Knows What It Is Doing!

Alkagrain requires protein to be measured directly on fresh samples. NOT dried samples and NOT on rapid test grain equipment and NOT by NIR.

Do Check Our Alkagrain Feeding Sheet For Feeding Guidelines.

Diets should be formulated to allow for the increased grain content and buffering effect of Alkagrain.

Do Call our Technical Team if you need further technical support at any stage.

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