Spanish dehydrated alfalfa, a different way to produce alfalfa.
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-Spanish production
- Cultivation area of 250,000 Ha
- Irrigation production
- 5 or 6 harvests a year (April to November)
- Potential to increase exports

Total production 2017/2018 – 1,453,076 Tn.

-Dehydrated Process – Phases 6 Steps
Harvest Processing – Classification
Processing – Dehydration and cooling
Transport Use/Consumption
Milk production

Harvest
No differences between alfalfa hay and dehydrated alfalfa.
- Especially irrigated. 5-year cycles
- Normally 5-6 harvests per season
- Season from April to November
- The cut-off time determines the protein concentration

Processing – Classification
- Upon arrival at the plant its protein and moisture level are analysed

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• Later it is classified depending on its quality
• It will be dehydrated within 24h from its arrival

Processing – Dehydration and cooling

• Dehydration is the unique key process of dehydrated alfalfa.
• Alfalfa goes through a dehydrating drum with air at about 250 ºC
• This process reduces the humidity of the alfalfa quickly to 8-12% in a very homogeneous way
• Then goes to an extraction tower that filters stones and other impurities
• Then a cooling tunnel returns the alfalfa to environment temperature
• Finally, the bale is produced, packed and stored for transport

Transport

• It is transported in bales of about +700 Kg.
• However, some companies offer bales 400kg approx. and 40/25 Kg
• In 40-foot containers loading 24tm

Use/Consumption

• Transition from alfalfa hay to dehydrated alfalfa in 5 to10 days, for example increasing 10%-20% daily up to 100%
Milk Production

- The nutritional quality will depend on the RFV and appropriate use
- The nutritionist should adjust the mixture as if it was alfalfa hay
- The production of milk will be the same in quantity and quality
- It will allow the farm to take advantage of better prices
- Alfalfa hay and dehydrated can be combine in the same TMR

Differences between alfalfa hay and dehydrated alfalfa

Harvest: No differences between alfalfa hay and dehydrated alfalfa

Processing:

- The harvesting machine cuts the fibers between 10 and 20 cm, compared to more than 50 cm of alfalfa hay
- In less than 48h it arrives at the plant, compared to the 5-7 days of drying in the field.
- It is dried by a dehydrating drum within 24 hours after arriving at the plant, in comparison to being dried outdoors for weeks or months.
- This fast dehydrating process using 250°C air leaves the product with a lower humidity level and kills insects and micro-organisms, making the product more stable and homogeneous
- Using the dehydrating drum and cooling tunnel makes it very difficult for stones or heavy materials to enter the bales.

Use/Consumption: Shortest fibers (10-20 cm), enter unifeed mixer later, for about 25% of the time compare to hay

Milk production: No differences between alfalfa hay and dehydrated alfalfa.

-Green shades do not make a difference on the quality of alfalfa
-How to start using Spanish dehydrated alfalfa in bales?

1. It may be advisable to do a test with part of the cattle to obtain a proof of the results

2. Do not make a sudden change, a progressive 5-10-day transition is necessary, increasing the portion of alfalfa dehydrates by 10%-20% of the total each day.

3. Proper use of the unifeed cart or mixing system. Processed one fourth of the time. For example, 4 minutes vs. 12. Introduce later of the process, not at the beginning.

4. The nutritional benefits are the same in reference to the RFV. The nutritionist should adjust the mixture in the same way as with alfalfa hay

5. The farmer can thus benefit from advantages in price while maintaining quantity and quality

6. The consumption of alfalfa in cows of high genetic quality can be 7 kg/cow/day, although there is a large dispersion from one animal to another, between 2 and 7 kg/day

-CONCLUSIONS

- Spanish dehydrated alfalfa offers the same results and it is used in a similar way.
- It has high level of high-quality protein.
- It can be used as a substitute for part of the soybean meal in the meal concentrate, and production will remain the same.
- At first look it has some differences with alfalfa hay, but they will not affect production if used correctly.
- It is a durable good which offers high-quality nutrition benefits.
- Its processing method ensures hygienic quality standards.
- Storage for dehydrated alfalfa is safer than storage for alfalfa hay.
- As it needs shorter time in the unifeed mixer to get the appropriate fiber length, users can save time and energy.