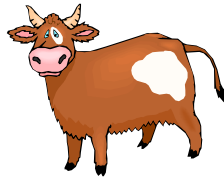
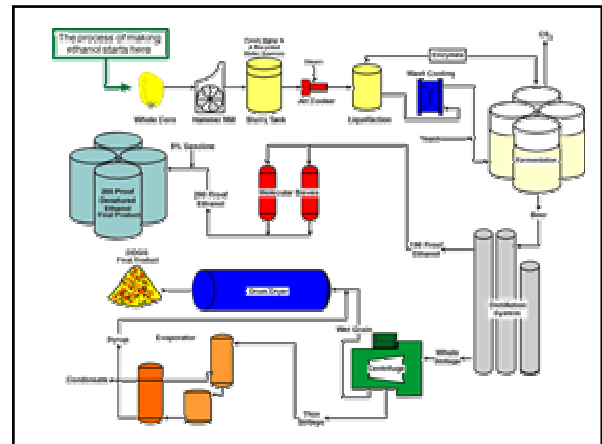


Wet Distillers Grain



Bill Weiss
 Dept of Animal Sciences
 OARDC/The Ohio State University



Wet Distillers

Wet distillers: 30-35% DM

- centrifugation
- solubles added back

Modified wet: 45 - 50% DM

- wet distillers plus pressing
- solubles added back

Wet Distillers



The Good

- cheaper
- mixes well
- palatable
- higher NEL

The Bad

- storage
- spoilage
- transport cost
- variability
- less RUP

Economic Value (wet vs dry)

Water: Wet (35% DM) = Dry x 0.39

$\frac{35}{.89}$

Value of nutrients: Wet = Dry x 0.98

Shrink: Wet = Dry x 0.85*

Risk: ?????



Storage costs (bagging = \$5-8/ton)

* Shrink is reduced in winter and can be reduced with various management practices

Example (delivered prices)

If DDGS = \$150/ton

Then

Wet = $150 \times 0.39 \times 0.98 \times 0.85 = \$49/\text{ton}$

If bagging distillers (~\$7/ton) then

$\$49 - 7 = \$42/\text{ton delivered}$

You assume more risk with WDG.
 Price should be discounted additionally

Storing Wet Distillers

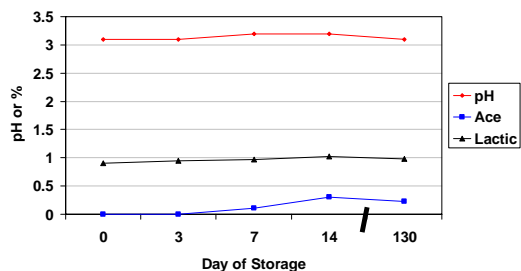
Shelf life ~ 1-2 wk stored in a pile

- Shorter in summer
- Longer in winter

Bagging Wet Distillers

- Excellent preservation if air is kept out
- Must be bagged immediately
- Does not ferment
- Must have high feed out rates (~1 ft/day)
- Cost: \$5-7/ton

Wet Distillers Does Not Ferment



Kalscheur et al., 2003

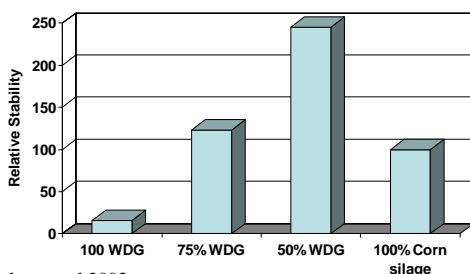
Ensiling with other feeds

Corn silage, soyhulls, beet pulp, corn stalks

- Rule 1. DM of mix <50%
- Rule 2. Choose compatible feed
- Low CP, P, and Fat
 - Good mixability

Good results with all feeds except stalks.
Feed out rates similar to corn silage

Aerobic Stability of Wet Distillers + Corn Silage Mixes (100 = 100% corn silage)



Kalscheur et al 2003

Preservatives

1. Microbial inhibitors
 - propionic acid, benzoic acid, sorbic acid
2. Added at distillery
3. Effective rate depends on desired length of storage
4. Cost for ~3 week stability = ~4\$/ton

Summary

1. Wet DG usually much cheaper than dry (corrected for moisture)
 - it should be
2. Spoilage is major concern (<2 wk storage)
3. Bagging greatly increases shelf life
 - must have adequate feed-out

Summary

4. Can be ensiled with other feeds
 - good preservation
 - difficult in practice
5. Preservatives show promise
 - increase shelf life a few weeks
 - reduces needed feed-out rate
6. For more info see:

www.das.psu.edu/pdf/kalscheur_ethanol_coproducts.pdf

