

# Processor Quality Control



CDFA Almond Hullers Educational Seminar

July 8, 2015

Harvest Hall, Modesto, California

# Introduction



## ☞ Manny Silva, Special Projects Manager

- ☞ Employed full time the past 9 years at Braden Farms and Braden Hulling
- ☞ In the almond industry for 16 years with experience ranging from Logistics, IT, Hull Sales, Accounting and HR
- ☞ Grew up on a dairy and employed part-time at family's dairy farm

## ☞ Braden Hulling

- ☞ Established to run huller/sheller operations in 2008
- ☞ Two hullers located in Denair and Hickman
- ☞ Runs approx. 30 million meat lbs combined

# Almond Hull Quality



☞ Reputation is KEY!!

☞ “Reputation...Takes years to earn and seconds to lose”

☞ High priced Hulls caused dairymen to be more critical and aware of quality

☞ Almond Hulls delivered from the auger are inconsistent therefore, blending must be done to maximize quality and minimize claims

☞ By providing more consistent quality as an industry, nutritionists are more likely to recommend more hulls in dairy feed rations

**Dairy Cows are our ONLY consumers to date**

# Quality Assurance Plan Overview



- ☞ Truth in labeling
  - ☞ Follow AHPA Almond Hull Quality Assurance Plan
  - ☞ Make sure if labeling under 15% crude fiber that steps have been taken to insure quality
  - ☞ Do Hull analysis at private lab as auger lines are filled
  - ☞ Separate Nonpareil, CA, late varieties and poor quality as much as possible
  - ☞ Train employees to become diligent of quality of hulls as well as meats

# Almond Hull Pile Map



- Almond hulls are separated from shell
- Auger lines and poles are identified
- Map is used to identify sample sent to lab for analysis



# Almond Hull Pile Sampling



## ☞ Sampling

- ☞ At Braden Hulling, three sites are probed from each pole to make up one sample
  - ☞ North, South and Center
  - ☞ South side tends to be high in fines/dust due to wind – higher crude fiber analysis
- ☞ Samples are labeled by Auger Line and Pole number
- ☞ Use AHPA recommendation for analysis
  - ☞ Acid Detergent Fiber and Lignin, Ash and Dry Matter in addition to Crude Fiber and Moisture

# Almond Hull Blends



- ❧ No exact ratio
- ❧ Use log of lab results to determine ratio blend
- ❧ Ratios on diagram are based on historic blends at Braden Hulling
- ❧ Late varieties (over 22% crude fiber) are blended last with high ratio of NP or sold as Hull and Shell
- ❧ We do not blend Shell with Hulls
- ❧ Shell is sold separately

**Fiber Content Hull Pile - Plant 2**

Line 3						
Pole #	Date	Variety	Fiber Content	Moisture	Ash Content	RE
5	10/10		15.6, 11.2, 11.1	10.0, 7.1, 7.8	8.1, 8.3, 7.1	
6	9/9		13.2, 12.2, 13.0	8.1, 10.7, 5.8	10.5, 10.7, 10.1	
7	9/10		15.8, 17.5, 16.9	5.2, 6.1, 5.4	7.5, 9.1, 7.3	
8	9/11		15.3, 18.5, 17.7	4.9, 4.6, 5.0	9.0, 8.6, 8.0	
9	9/2		18.8, 17.0, 21.2	6.3, 6.4, 6.0	7.1, 8.8, 7.4	
10	10/13		15.5, 19.1			
11	10/13		17.3, 18.0			
12	10/13		16.4, 17.8			
13	10/13		15.3, 18.3			

  

Line 4						
Pole #	Date	Variety	Fiber Content	Moisture	Ash Content	RE
1	8/18	NIP	11.0, 11.5, 11.5	7.4, 8.0, 10.7	5.6, 5.6, 5.1	
2	8/1		11.3, 11.7, 11.1	6.1, 6.5, 5.4	10.7, 10.9, 10.7	
3	8/21		11.7, 11.0, 11.4	7.2, 6.8, 6.9	10.0, 10.2, 10.1	
4	8/1		11.9, 11.7, 10.2	8.5, 9.1, 8.2	10.4, 10.6, 10.7	
5	8/29		12.2, 11.9, 12.1	5.4, 6.7, 5.9	7.2, 10.9, 10.9	
6	8/29		12.0, 12.0, 12.8	7.1, 6.8, 6.7	7.5, 6.9	
7	9/20		11.8, 11.8, 11.8	6.1, 6.1, 6.1	6.1, 6.1, 6.1	

Line 3 = CA Varieties  
 Line 4 = Nonpareil  
 >22% Hull and Shell or  
 1 Pollinator to 3 Nonpareil

# Fiber Content Hull Pile - Plant 2

## Line 3

Pole #	Date	Variety	Fiber Content	Moisture	Ash Content	RE
5	10/10		15.0, 11.2, 11.1	10.0, 7.1, 7.8	8.1, 8.3, 7.1	
6	9/9		13.2, 12.2, 13.0	8.1, 10.7, 5.8	10.5, 10.7, 10.1	
7	9/14		15.8, 17.5, 16.9	5.2, 6.1, 5.4	7.5, 9.1, 7.3	
8	9/11		15.3, 18.5, 17.7	4.9, 4.6, 5.0	9.0, 8.6, 8.6	
9	9/2		15.8, 17.0, 21.2	6.3, 6.4, 6.0	7.1, 8.8, 7.4	
10	10/13		15.5, 19.			
11	10/13		17.3, 18.0			
12	10/13		16.4, 17.8			
13	10/13		15.3, 18.3			
14	10/14		10.7, 19.1			

Clean Pollinators - no blending needed

3 Pollinators to 1 NP

1 Pollinator to 1 NP

## Line 4

Pole #	Date	Variety	Fiber Content	Moisture	Ash Content
1	8/18	NIP	11.6, 11.6, 11.5	7.4, 8.0, 10.7	5.6, 5.6, 5.1
2	8/18		11.3, 11.7, 11.1	10.1, 10.5, 5.4	10.7, 10.9, 10.7
3	8/21		11.7, 11.0, 11.4	7.2, 10.8, 10.9	10.0, 10.2, 10.1
4	8/21		11.9, 11.7, 10.2	8.5, 9.1, 8.2	10.4, 10.1, 10.7
5	8/29		12.2, 11.9, 12.1	5.4, 10.7, 5.9	7.2, 10.9, 10.4
6	8/29		12.0, 12.1, 12.2	8.0, 7.1, 10.8	10.7, 7.5, 10.9
7	9/10		11.9, 11.9, 11.1	10.1, 10.1, 10.1	10.1, 10.1, 10.1

3 Pollinators to 1 NP

1 Pollinator to 1 NP

# Blended Hulls Verification



- ❧ Use a 1000 gram scale approx. \$25 to test in-house
- ❧ Pull sample after blending
- ❧ Measure 500 gram sample
- ❧ Separate “Good” hulls from shell, damaged hulls, dust and foreign material
- ❧ Visual inspection of blended pile also necessary – if loader driver notices a lot of shell or foreign material...Dairy will also!



# Blended Hulls Verification – cont.



- ❧ Hulls illustrated are from a 20% crude fiber lab analyzed pole
- ❧ 93g shell and foreign material divided by 500g sample = 18.6% crude fiber
- ❧ Small hulls vs. shell, sticks, fines/dust and black hulls visually unacceptable to dairy
- ❧ Loader drivers must be trained to visually inspect as well as pull sample to verify
- ❧ Maintain log of blend results as backup in case of unfavorable CDFA Notice



# Conclusion



As an industry we need to make every possible effort to improve the reputation of Prime Almond Hulls with the feed mills and dairies.

Let's avoid news like this in the future...

CDFA Issues High Violation Report

"...several AHPA members received a report from their CDFA feed inspector addressing their firms crude fiber violation rate." AHPA emailed on May 22, 2015

**Thank you for attending!**