



FMMO Hearing, Jan. 2024
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Chief Agricultural Officer





About Me

- **Born and raised in Colombia S.A. at a beef ranch and small Jersey dairy farm**
- **La Salle Veterinary School 1988**
- **Texas A&M University 1990**
- **University of Florida 1993**
- **Began developing organic herd health programs in 1995**
- **Responsible for herd health and reproduction of conventional and organic farms for Aurora Dairy Corporation in 5 states 1995**
- **Manager of Aurora Organic Dairy's farms since 2004- now. 4 farms, 10 parlors, 20,000 acres, 26,000 cows, 15,000 heifers.**
- **Co-author of more than 20 scientific papers related to health and welfare of organic cows**
- **Adjunct professor of Animal Science at Colorado State University**
- **Co-founder and former president of the Dairy Cattle Welfare Council**





Organic is a Different Production System

Key Differences from a Production Perspective:

- Certified Organic Feed
- Grazing Requirements
- Cow Care





Organic Dairy Requirements: Feed

- Land must go through 3 years of transition for feed to be certified organic
- No synthetic fertilizers
- No pesticides
- No herbicides
- No GMO seed
- Distinct boundaries and buffer zones
- Crop rotation





Organic Dairy Requirements: Grazing

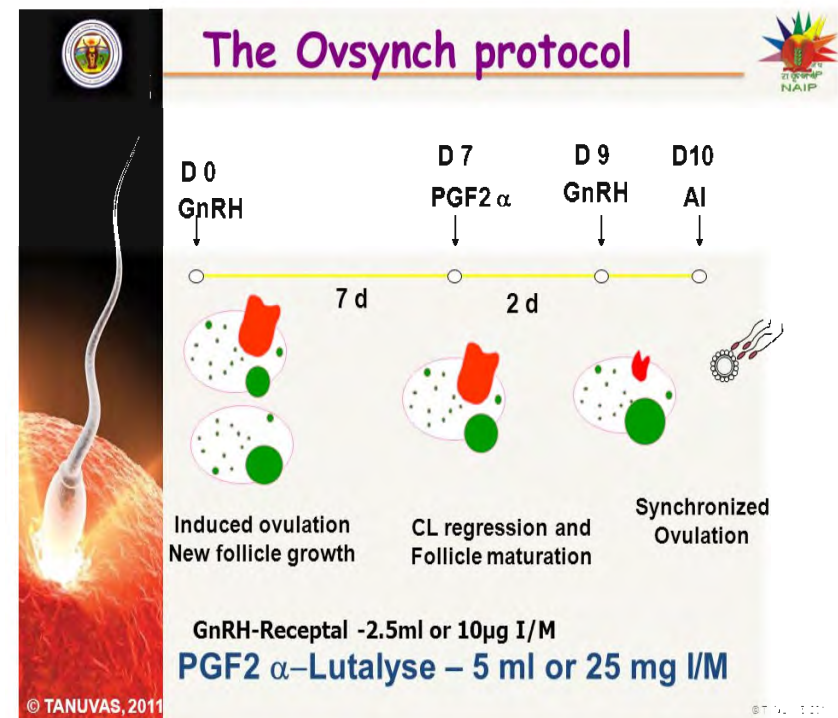
- Cows must graze a minimum of 120 days during grazing season
- At least 30% of the Dry Matter Intake Demand (DMID) must come from grazing
- All animals older than 6 months of age must graze





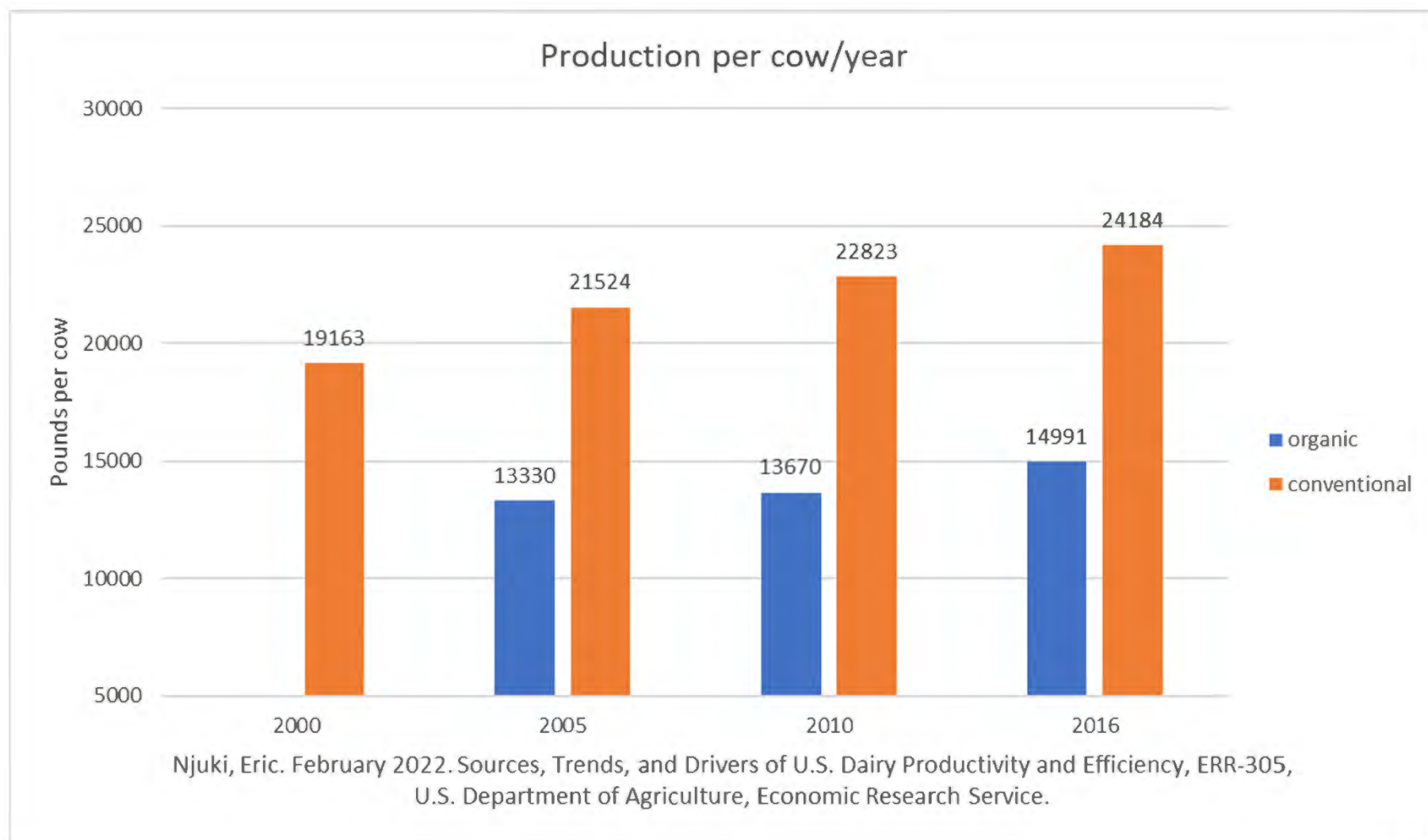
Organic Dairy Requirements: Cow Care

- Must use preventive health practices
- No synthetics unless approved on the national list
 - No hormones
 - No antibiotics
 - No pesticides
- May not restrict use of a prohibited substance to preserve organic status of the animal
- Animal must be removed from organic herd if treated with prohibited substance





Production Per Cow: Organic & Conventional





Organic Production Per Cow – Why?

- **Grazing**
- **Non-GMO forages: fiber digestibility**
- **No byproducts: distillers grain, wet brewers, etc.**
- **No synthetic amino acids or supplements**
- **No antibiotics like ionophores (Rumensin) that increase feed efficiency**
- **Reproduction – lower pregnancy rates affect average days in milk**
- **No synthetic hormones allowed in organic**
- **No timed artificial insemination**
- **Uterine involution**





Cost of Production: Feed

- **Organic crop yields are lower than conventional**
 - No GMO seed
 - Cannot use synthetic herbicides, pesticides, fertilizers
- **Large land base required for grazing**
- **Significant upfront investment due to 3-year land transition requirement to produce crops or to be used for grazing**

Commodity	Conventional	Organic
Corn \$/bushel	\$5	\$10
Soybean Meal \$/ton	\$390	\$1,250
Alfalfa Hay \$/ton	\$250	\$315
Sources: USDA ERS, USDA AMS		



Cost of Production: Labor

- Organic dairy operations have higher labor cost. (Trends, and Drivers of U.S. Dairy Productivity and Efficiency, by Eric Njuki, ERS, February 2022)
- Grazing requires labor. This is not needed in conventional non-grazing operations; Taking cows in and out of pasture is labor intensive
- Labor intense record keeping for organic compliance.





Cost of Production: Operations

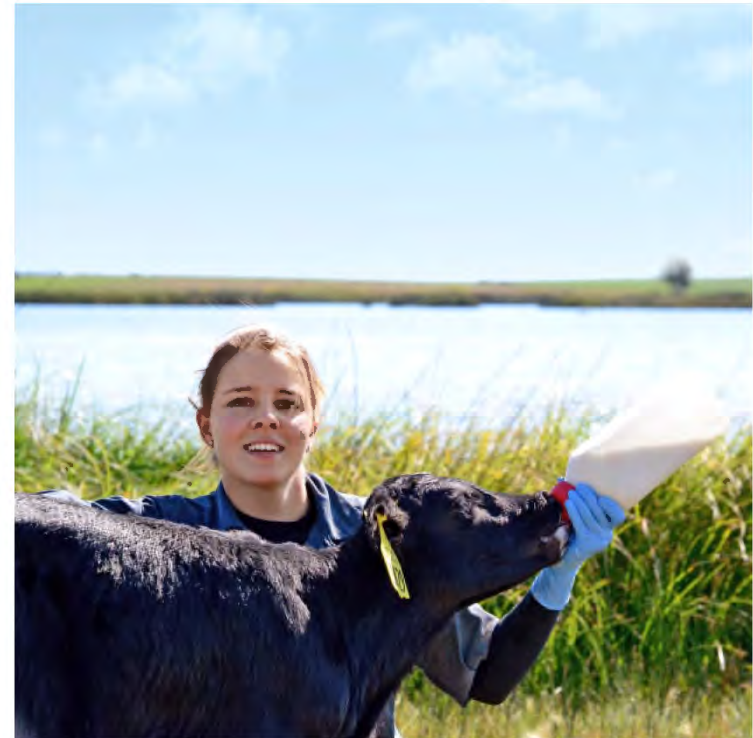
- Routine operational expenses on organic dairy farms have much higher costs
- Bedding, if eatable (agricultural products like straw, corn stalks cotton burrs) must be certified organic
- Restricted use of chemicals to wash parlor, needing an extra rinse
- Restricted use of teat dips, making them more expensive.





Cost of Production: Herd Replacements

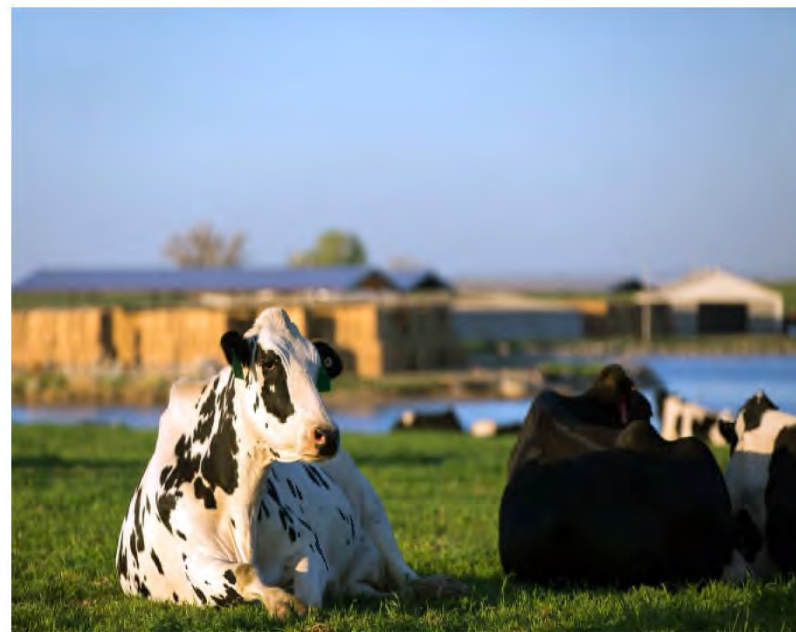
- No certified organic milk replacer available
- Must feed milk from bulk tank
- Must use certified organic bedding if using agricultural products
- Age at first calving is higher than conventional (Sorge et al. J. Dairy Science).
- Use of antibiotics is prohibited; If used for animal welfare reasons, then removed from the herd
- Disposal rate of replacements is much higher than conventional





Organic Cost per CWT

- Lower production per cow
- Higher feed cost per cow
- Higher labor cost per cow
- Higher maintenance cost per cow
- Higher replacement cost per cow
- Significantly higher cost per CWT





Conclusions

1

Organic dairy production is very different than conventional dairy production.

2

The NOP standards for organic dairy production result in lower production per cow, higher feed cost, higher labor cost, higher operational cost, and higher replacement cost.

3

Organic milk production cost per hundredweight is significantly higher than conventional dairy production.



Thank You!

