



Joint Legislative Committee on Agriculture

November 17, 2021

Kentucky's Dairy Industry

State of the Industry 2021 – Past, Present, and Future

Presented by H.H. Barlow, Executive Director

KDDC
Kentucky Dairy
Development Council

Our agenda today



- ▶ Welcome
- ▶ Introduction
- ▶ Past History of Kentucky Dairy and KDDC
- ▶ Impact of 2020 and global pandemic
- ▶ Present KDDC Programs
- ▶ A New Era in Dairy
- ▶ Kentucky Dairy Opportunities
- ▶ Future Economic Potential
- ▶ Closing

First, let's travel back in time

2005 – KDDC formed, organizing Kentucky's dairy industry



KDDC
Kentucky Dairy
Development Council

- Tobacco buyout paved the road for diversifying agriculture
- Kentucky's dairy heritage was smaller but strong, primed and ready for new growth and opportunity
- Through funding and support from Kentucky Ag Development Board (KADF)
- **3 main goals –**

1. improve farmer profitability by increasing production

2. improve quality of milk produced

3. engage farmers to adopt and implement latest technology through education and involvement opportunities



The status of Kentucky Dairy, then and now

By the numbers

2005

- 1400 dairy farms
- 90,000 cows
- 80 cows per farm
- Production: 12,447 avg lbs/yr/cow
- Quality: 422,000 somatic cell count
- Gross Receipts: \$195 million



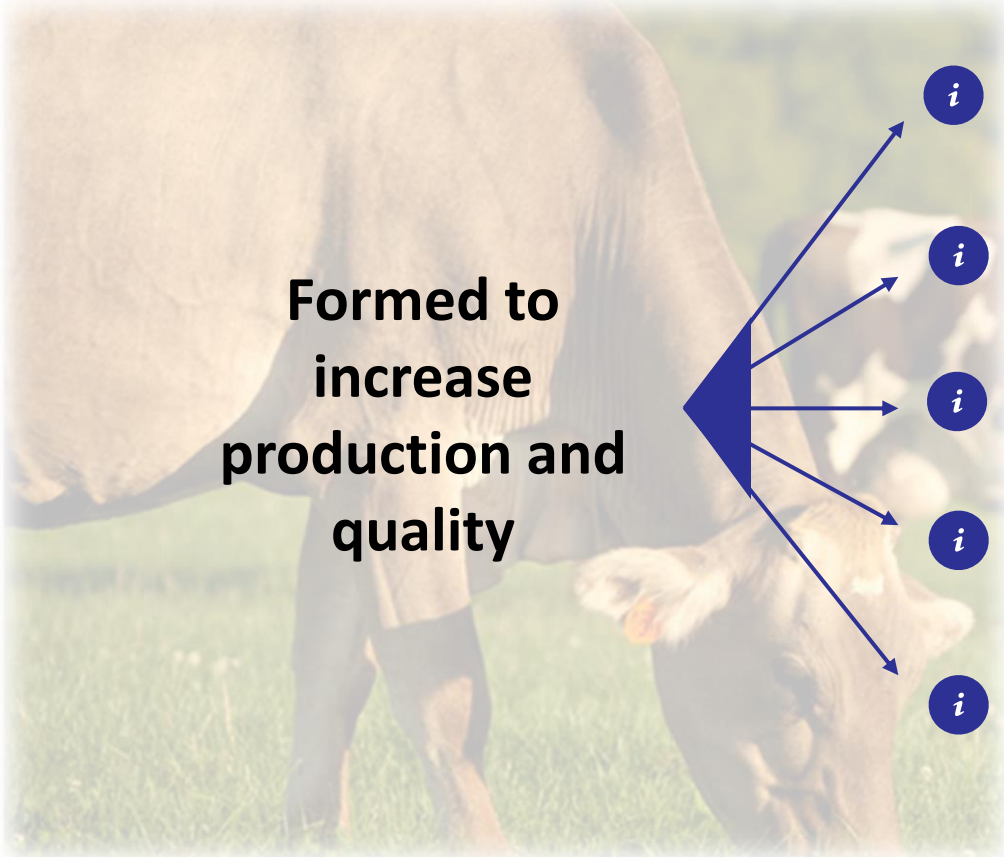
2020

- 450 dairy farms
- 48,000 cows
- 110 cows per farm
- Production: 19,540 avg lbs/yr/cow
- Quality: 247,000 somatic cell count
- Gross Receipts: \$175 million

Despite losing 2/3 of our dairy farms in just 15 years, we saw a 57% increase in production per cow and a 42% improvement in quality, and only a \$20 million drop in gross income receipts.

A plan to accomplish our goals:

M.I.L.K. – Milk Incentive Leadership Kentucky



**Formed to
increase
production and
quality**

i

UNIQUE in its partnership between KDDC and the milk marketing agencies – each shared ½ the incentive payout to farmers

i

255 dairy farm producers participated

i

Increased production over 355 million pounds in a 7-year period

i

Resulting in 67 million dollars back into the KY economy

i

8 million dollars awarded to farmers who met goals over the 15-year period

A very successful program for KDDC

2020 – Responding to unprecedented times

- 1. COVID-19 Pandemic
- +
- 2. Bankruptcy of Dean's Foods
- +
- 3. Depressed US & Global Economy
- =
- ONE clear message...



DRASTIC PROGRAM CHANGES - PARAMOUNT TO SURVIVAL AND SUCCESS

Turning negatives to positives

KDDC'S new MILK 4.0 Program

Using evidenced-based best practices from across US to drive success at home in KY!

1 **Surveyed our greatest areas of need**

2 **Researched best practice farms ranking highest across the US**

3 **Consulted with nationally recognized dairy consultant specialists**

4 **4 major factors identified through this analysis effort:**

a. Genetics b. Reproductive Performance c. Quality d. Financial Analysis

5 **For the genetics portion, we formed partnership with national genomics leader Zoetis to provide farmers with 50% discounts on genomics testing.**

6 **DHIA records utilized to evaluate reproductive performance and production quality. Incentives are paid if/when goals are met.**

7 **Financial Analysis in cooperation with three entities:**

- a. Cornell University**
- b. University of Tennessee**
- c. Rockingham Cooperative**



Adoption of this robust program provides the latest in technology and practices bringing our dairy men and women into the 21st century!

Two additional value propositions...

Producers benefit from national initiatives supported by KDDC



- Small Dairy Value-Added Program
- Partnering with UT and NC State
- 3-year \$6 million grant
- Help new start-ups or existing dairies with establishing on-farm processing ventures
- 10 operations currently, several more in planning phase
- Chaney's Dairy Barn and Kenny's Cheese - both tenured and successful examples
- This year, my neighbor, the Jones family, started processing and selling their own milk as Legacy Dairy



- Beef on Dairy
- Gaining steam nationwide
- Advent of sexed semen (predetermined gender of calf) resulted in too many dairy heifers thus flooded market
- Genomics and record keeping allows easy identification of top 50% of your herd for raising milk cow replacements
- Bottom 50% milk producing cows in herd can be bred to genetically superior beef bulls
- Creates a cross-bred calf with premium carcass and cut quality over dairy bull calf
- Adds at least \$150 value to these calves over purely dairy bred

The new era of dairy...

The dawn of a new day in America's dairy industry means positive change ahead for Kentucky dairy producers



Jack Britt

Jack Britt - nationally renowned dairy scientist at NC State; born and raised in KY, brother started the embryo transfer movement



Scarcity of resources

Published a major publication predicting that 42% of dairy cows in the US today are living in severely water stressed areas.

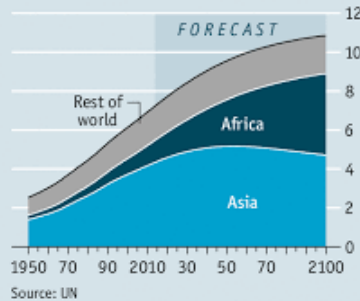


Population exploding

Britt also explains that worldwide milk consumption will increase by 37% over next two decades due to sizeable increases in Asian and African population.

The African bulge

Population, bn



Dairy – a complete food

“Hungry people need dairy foods” and “indispensable amino acids are complete only in meat, *milk* and eggs!”, says Britt. Dairy powder exports will rise over 20 years.



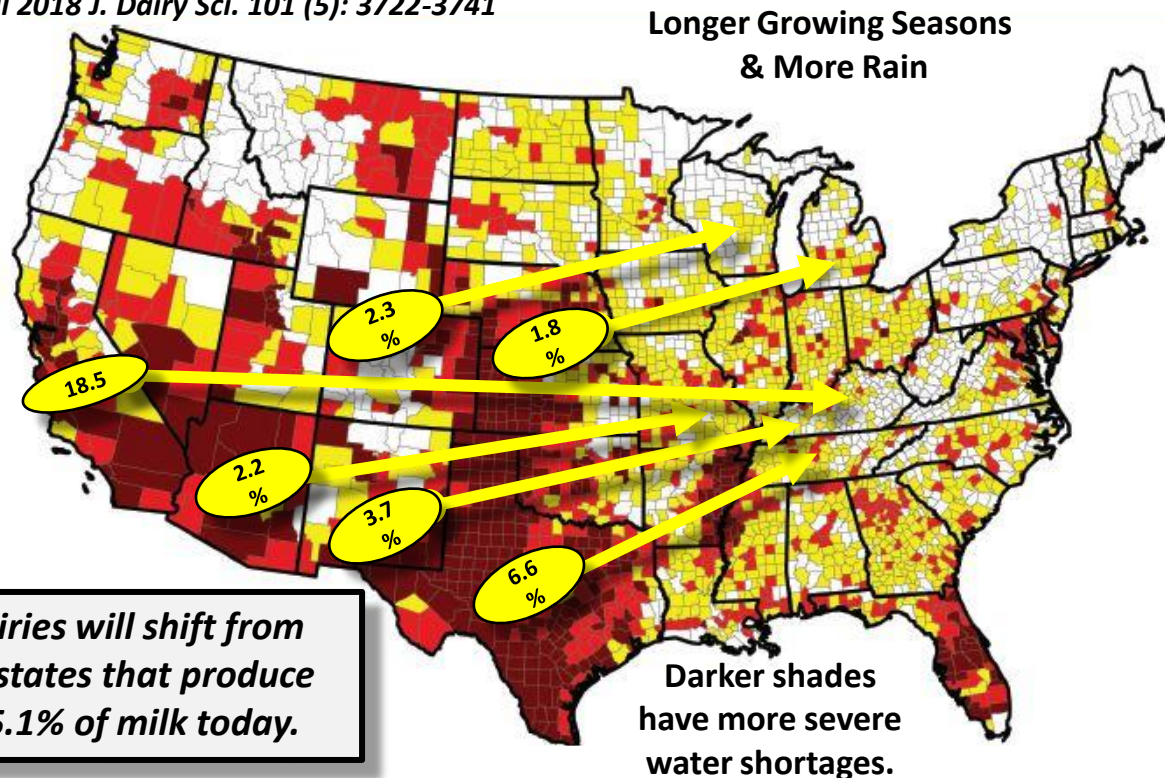
California lacks water

Texas, New Mexico, Oklahoma and Kansas have sparse resources as well. Human needs take precedence of course.

 **Scarcity of resources and increasing needs point the way eastward**

Lack of water will drive dairy eastward and northward

Updated 10/25/2021 from:
Britt et al 2018 J. Dairy Sci. 101 (5): 3722-3741



And there's more...

Added factors demanding the move from the west



In addition to lack of water, water, water

- Urban pressures (in California)
- Environmental regulations
- Transportation cost
- High percentage of consumers live east of Mississippi River



Scarce resources and increased demand - basically dictates that there will be a major move of milk production to east of the Mississippi over the next 20 years

Kentucky poised to attract development



Water water water



Dairy-friendly environment



Temperate climate



Cheap energy



Abundant feed supply



Rural KY prime for new investment



Proximity to consumers



KDDC



Other Southeast states such as Tennessee are experiencing sharp declines in their dairy industry. Conversely, Kentucky has the most attractive infrastructure and advantages to attract those from the east looking for a new home.

What would a large dairy look like?



**Now, let's dive deeper
into the economic
impact outside of the
dairy farm's borders**



- Each cow produces a minimum of \$5000 farm gate sales annually
- 1000 cows = \$5 million annually**
5000 cows = \$25 million annually
- To produce the revenue, input costs are between 80-90% of gross
- These input costs represent feed costs, equipment cost, service cost, labor cost, utility cost, etc.
- Job creation - minimum of 10 people per 1000 cows
- These numbers are projections provided by California dairy
- The infrastructure investment up front (bricks, mortar and equipment, not including land) runs \$8000-10,000 per cow.
- High land values in California and other western states adds to the appeal of a move east of the Mississippi
- These numbers contribute to an appealing ROI for owners/producers looking to relocate or start new

AN ECONOMIC ENGINE...

Let's ponder the impact on any local rural Kentucky community with a large dairy



Reaching beyond the borders of the farm

Various satellite industries will generate additional growth



Feed productions

Waste utilization

Market for distillers by products

Feeding replacement animals

Offsite beef on dairy feeding and processing

Contract harvesting and manure removal

Energy production – methane digesters

One more question...

How will these opportunities affect KY's present dairy industry?

An energizing bolster to all aspects!



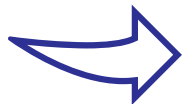
Solidify and expand infrastructure such as satellite industries that serve dairy farms locally



Large influx of milk will expand and create new processing opportunities.



Will force current milk marketers to take note and engage with local producers



AND, new dynamic for processors is transportation cost – extra milk loads from a Michigan co-op are easy to get now but will prove tougher as fuel costs increase by as much as 50% or more. Local milk supply will quickly become more attractive.

Converting ideas into tangible actions



- This will be a cooperative effort between KDDC, Kentucky's dairy industry, the Economic Development Office, the Department of Agriculture and the Ag Development Board.
- KDDC's role – understand what's at stake on all sides and be in the driver's seat to facilitate
- Recruitment efforts - in some way we have to go find the candidates seeking to move

QUESTIONS



Get in Touch



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Thank you for supporting Kentucky's dairy industry!