

Changes in herd statistics for dairy cattle in the U.S.

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GEORGIA

Introduction

- Document changes in herd statistics for US dairy cattle
- Management practices are changing over time
- National Performance Metrics updated to reflect these changes
- Phenotypic trends



Overview

- U.S. dairy cow census
- Developing service provided by CDCB on behalf of NDHIA
- Document and redefine current reports
- User defined benchmarking statistics
- Decision Support Tool (Newton et al., 2020)



Data quantities

| Trait | Quantity |
|--------------------|----------------------|
| Lactations | 105.5 million |
| Type | 1.7 million |
| Feed Intake | 6,577 |
| Breedings | 13.3 million |
| Calving difficulty | 36.1 million |
| Total | - 164 million |

Wiggans, 2021

Data

Format 4 (Cow Lactation Records)

- Cow lactation and pedigree records including multiple test days
- Pedigree, production data

Format 14 (Herd Average Records)

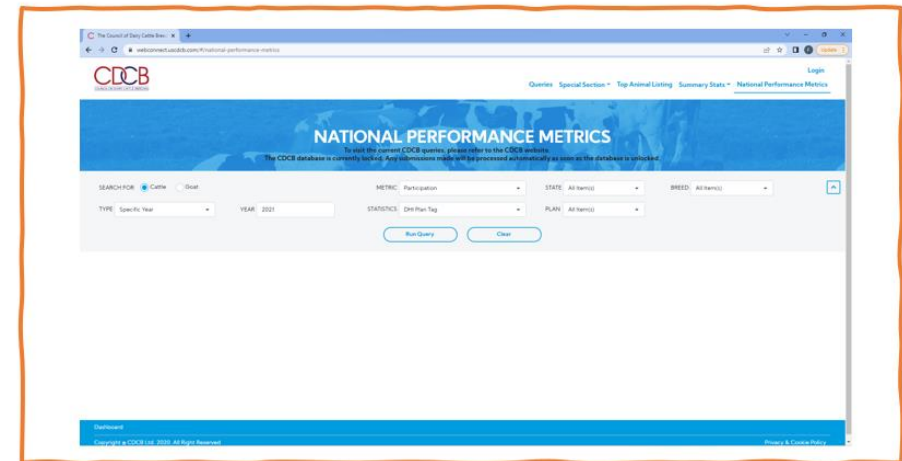
- Include herd test day and yearly average lactation records

Format 5 (Reproductive Records)

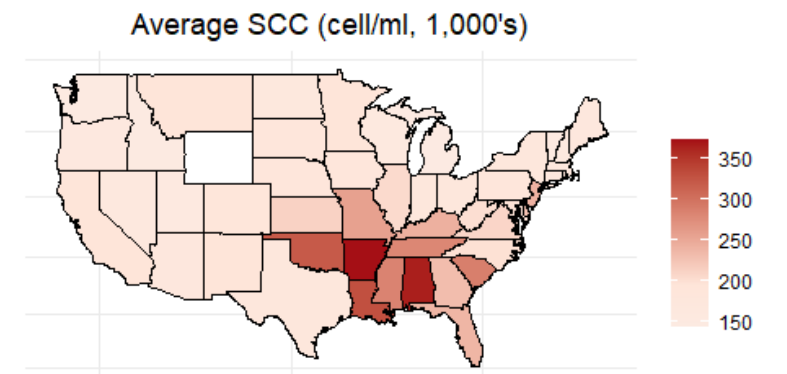
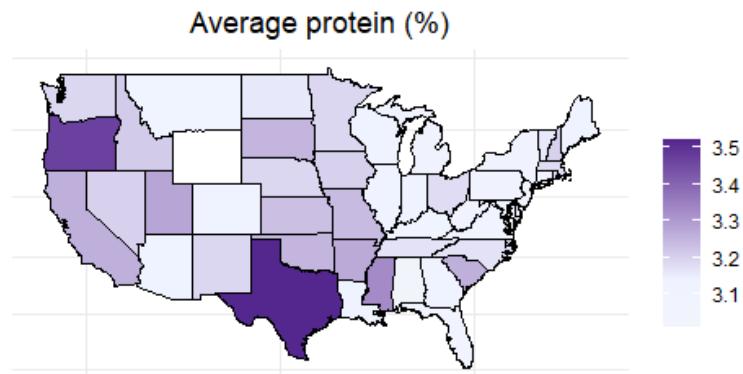
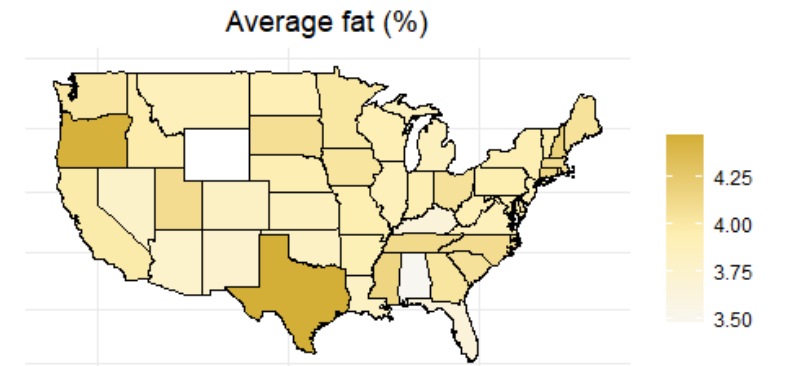
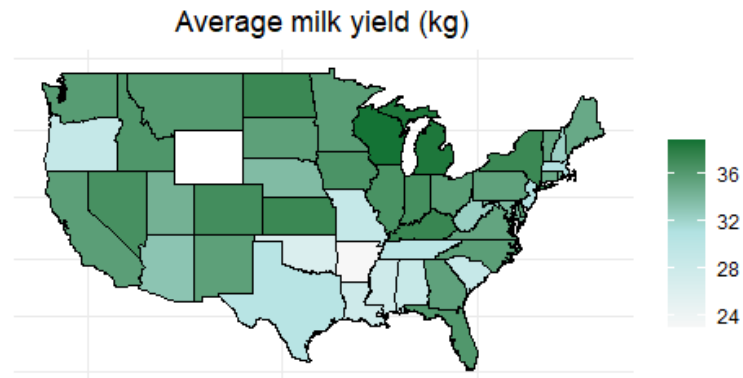
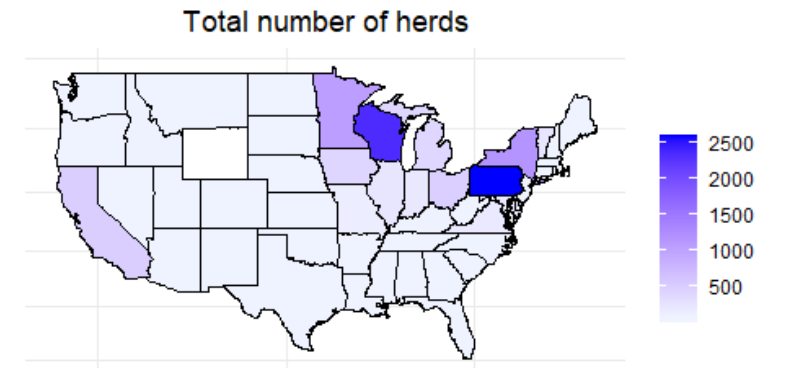
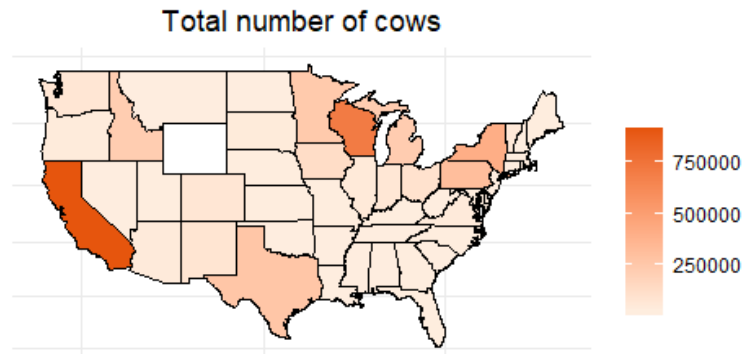
- Pedigree, production, & reproduction data
- Format 5's include reproductive records

User Interface

- Thesis/Scientific paper/ADSA → User Manual/Resources
- Tables & Graphs
- Options depend on data format (herd vs individual cow)
- Downloadable (lb. – kg)
- [National Performance Metrics](#)

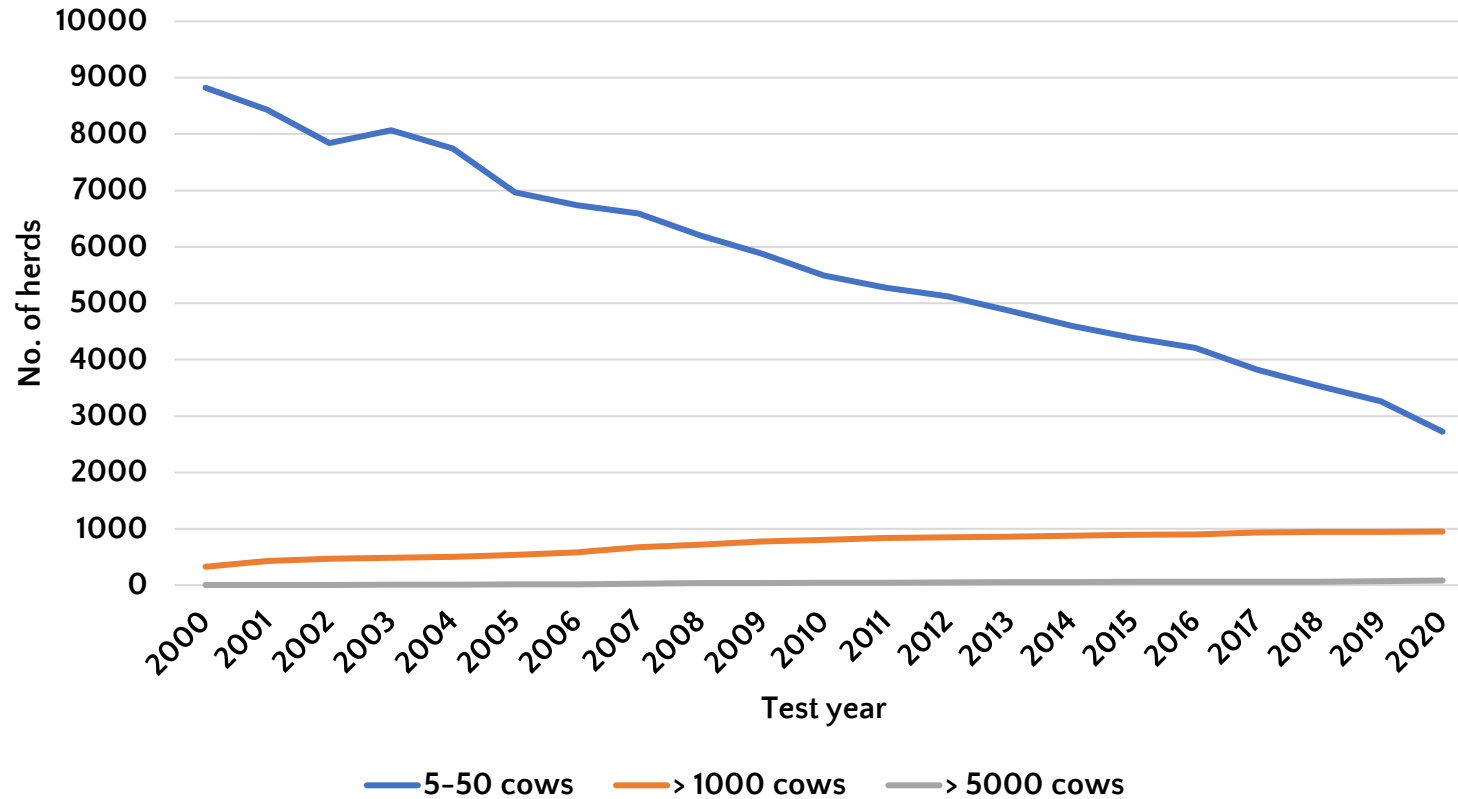


Test day records (2020)

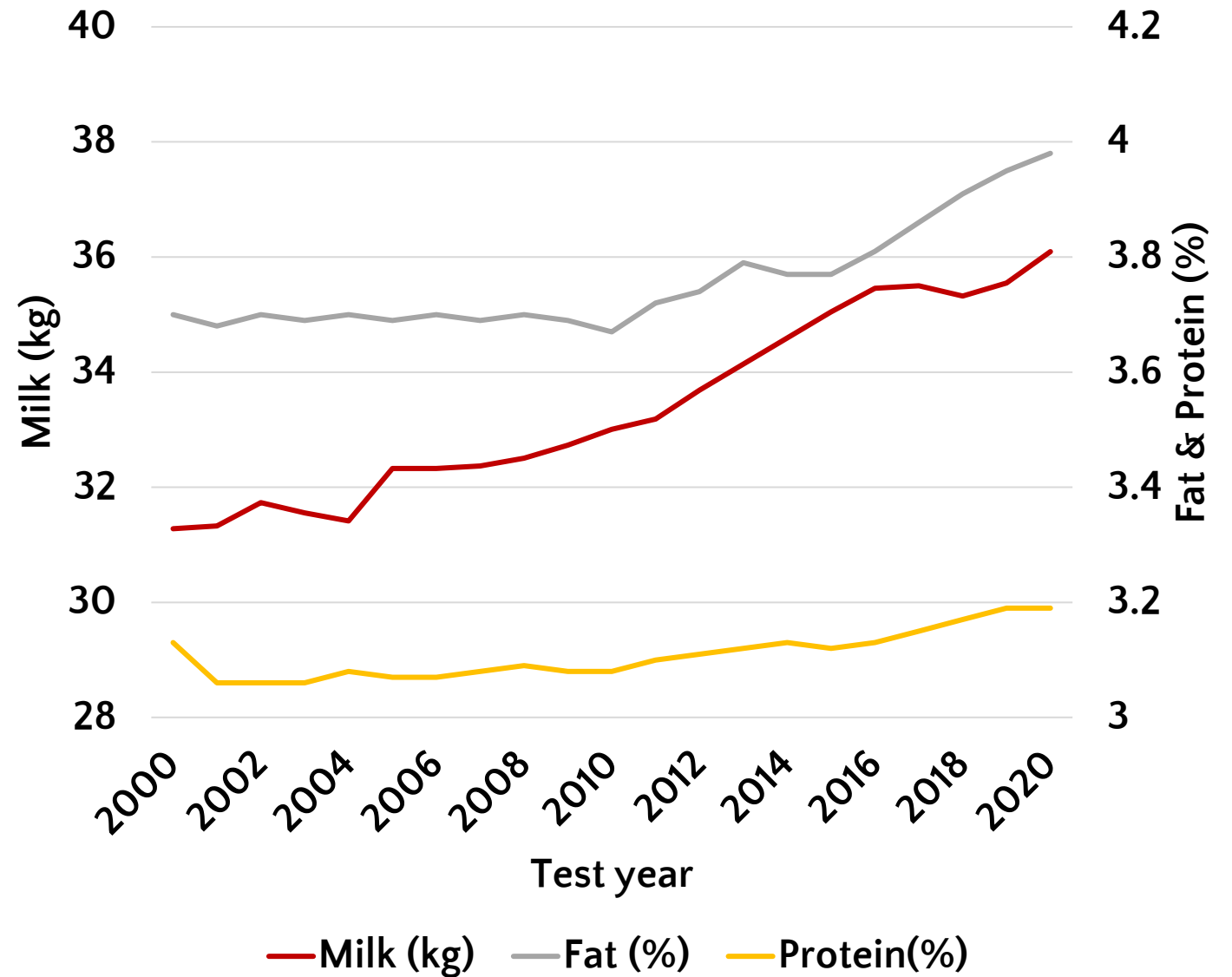


***No DHI records from Wyoming used**

Participation



Test day milk (kg), fat (%) and protein (%)



Reproductive Status (2020)

| Breed | No. Records | Average days from calving to first breeding | +SE |
|-------------------|-------------|---|------|
| Ayrshire | 4,287 | 91 | 0.63 |
| Brown Swiss | 13,248 | 88 | 0.35 |
| Crossbred | 160,920 | 77 | 0.06 |
| Guernsey | 3,975 | 89 | 0.69 |
| Holstein | 2,436,687 | 78 | 0.02 |
| Jersey | 362,697 | 72 | 0.04 |
| Milking Shorthorn | 2,687 | 89 | 0.82 |
| All Breeds | 2,990,530 | 78 | 0.01 |

Conclusion

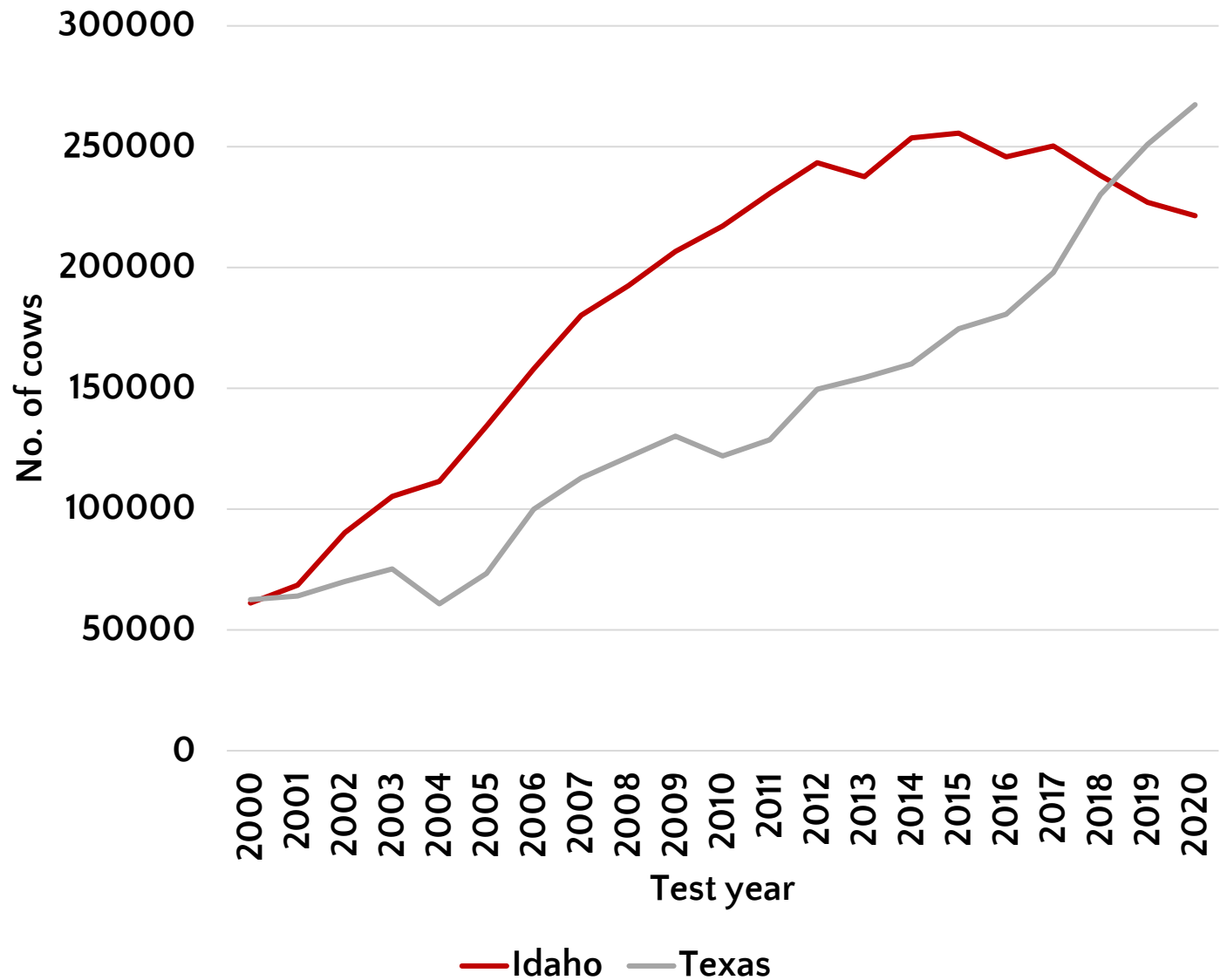
- Cow population is shifting (status of milk recording)
- More phenotypes required for colored breeds
- National milk recording program has multiple purposes – additional statistics to come!!
- Phenotypic trends reflect genetic trends

Acknowledgements



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Trends in State Cow Population



Breed Composition

| State | Holstein | | Jersey | | Crossbred | |
|------------|----------|---------|--------|---------|-----------|--------|
| | 2000 | 2020 | 2000 | 2020 | 2000 | 2020 |
| California | 501,712 | 652,222 | 38,393 | 169,740 | 841 | 18,976 |
| New York | 191,192 | 315,019 | 7,203 | 11,282 | 53 | 6,460 |
| Wisconsin | 326,958 | 535,166 | 8,117 | 25,091 | 524 | 17,182 |
| Texas | 43,525 | 62,598 | 6,981 | 106,223 | 268 | 64,109 |
