

Water consumption needs on broiler farms



CARSON EDGE

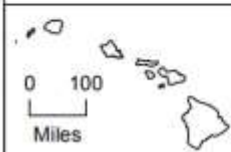
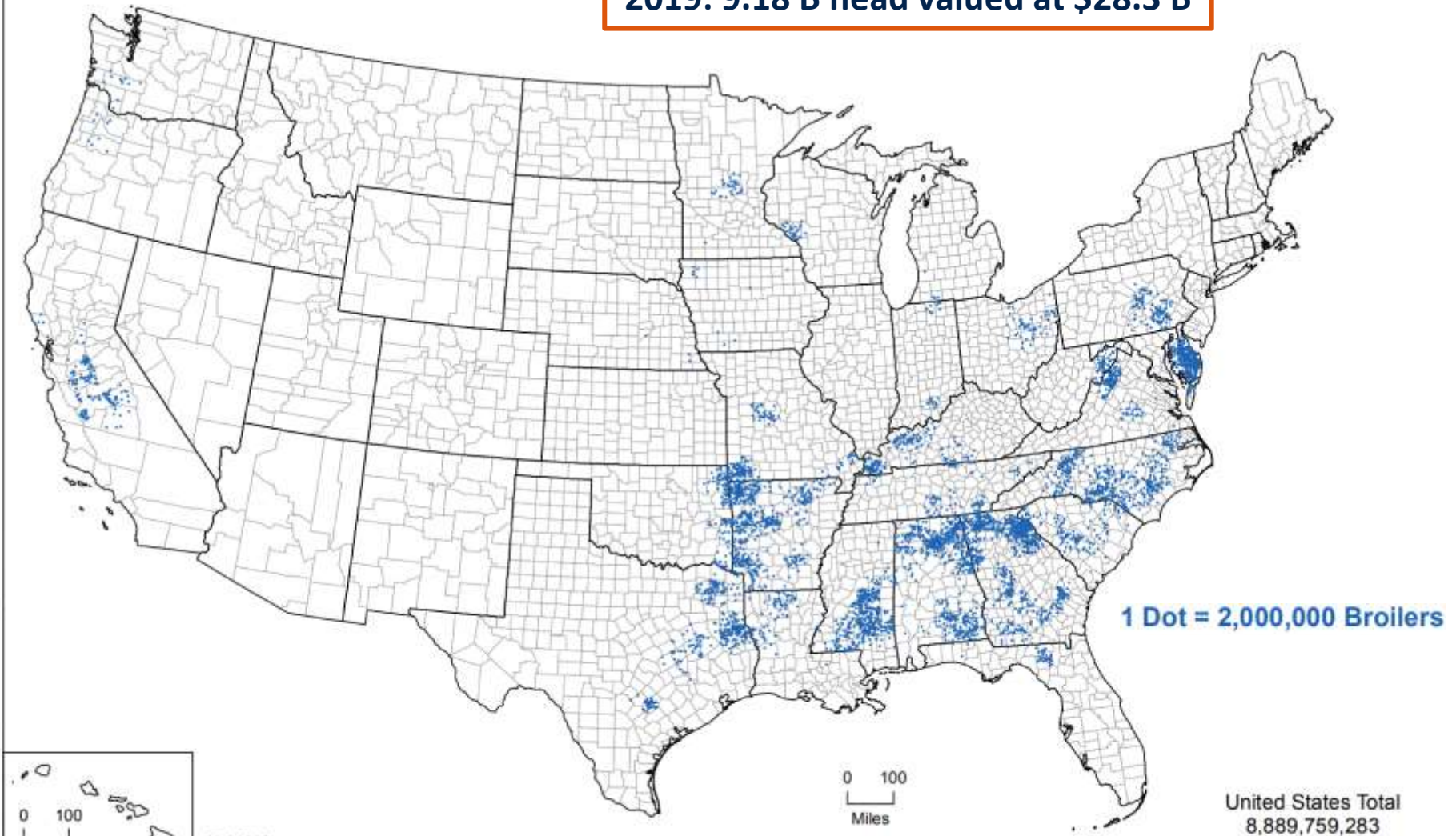
BIOSYSTEMS ENGINEERING DEPARTMENT

AUBURN UNIVERSITY, AUBURN, AL



Number of Broilers and Other Meat-Type Chickens Sold: 2017

2017: 8.89 B head valued at \$30.6 B
2019: 9.18 B head valued at \$28.3 B



United States Total
8,889,759,283

Broiler water uses and importance

1. CLEAN AND RELIABLE DRINKING WATER

Importance: necessary nutrient for metabolic function and bird welfare



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2. WATER FOR EVAPORATIVE COOLING SYSTEMS

Importance: Cools house to avoid heat stress on the birds



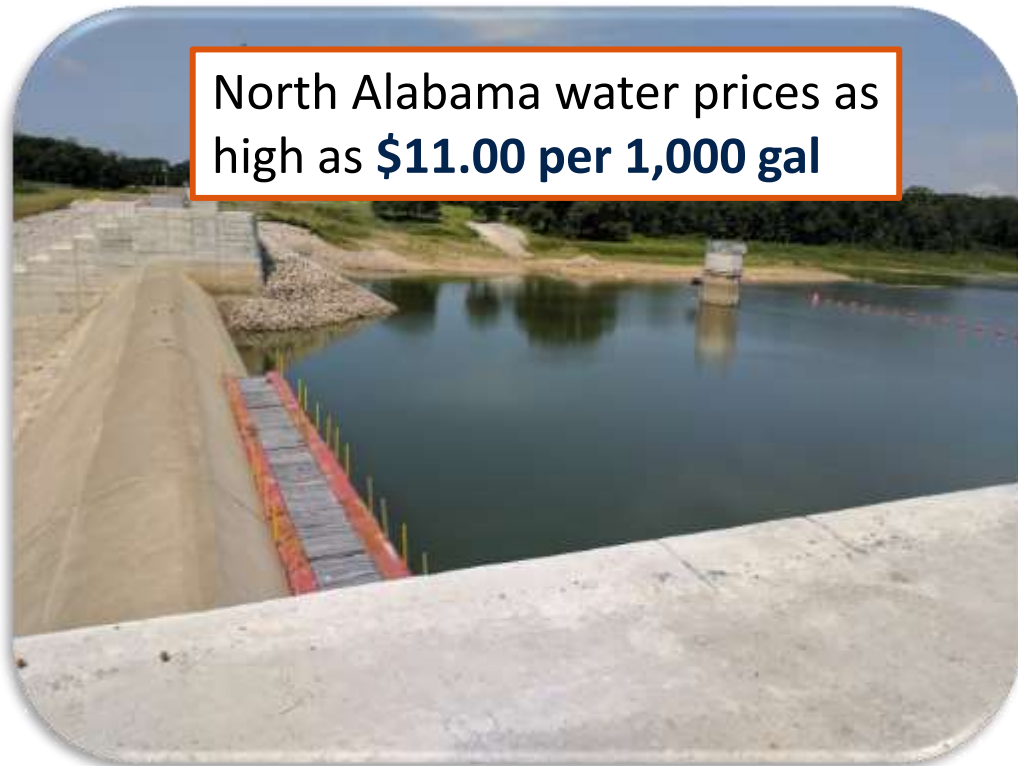
Sitewater Integration formerly Rainwater Resources

Total consumption = **over 1,100,000 gal**

Grower water sources and their issues

1. MUNICIPAL OR CITY

Issues: High costs and expected to rise



The Cullman Times

2. GROUND WELL WATER

Issues: Quality, Maintenance, Low yields



Dr. Jesse Campbell, Auburn University

My take: Broiler water consumption

Summary:	Reliable and clean water sources are vital to producing high quality poultry products consumers expect and should not be overlooked . Water needs for farms should be considered with the understanding solutions need to be tailored to meet the farm's needs .
Past:	Researchers and industry focused on breeding for fast growth and high performance with water taken for granted.
Present:	Rising water costs, water quality issues , and expectations that global temperatures continue to rise (NOAA) mean more costly water consumption for growers.
Future:	Water management, both quality and quantity , should be a crucial part of broiler production.
Solutions:	Economical and sustainable, research and understand water needs for broilers (quality and quantity), emphasis on grower water management, rainwater harvesting (ex. potentially capture 1.1 M gal in N. Alabama), settling tanks (drop suspended material out of water)

Acknowledgements and questions

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