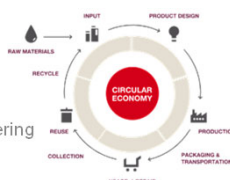


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On-farm Manure Management to Improve Circularity

Mahmoud Sharara

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Five principles of circularity

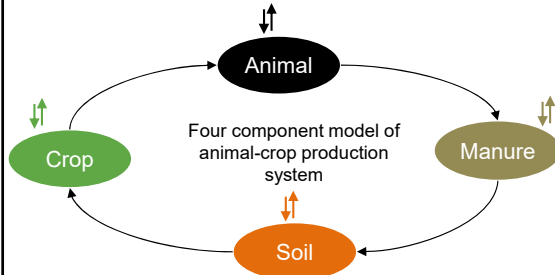
- Increase use efficiency
- Design out waste and pollution
- Keep products and materials in use
- Regenerate natural systems
- Provide economic benefits

Source: Ellen MacArthur Foundation, ASABE CBSI)

2

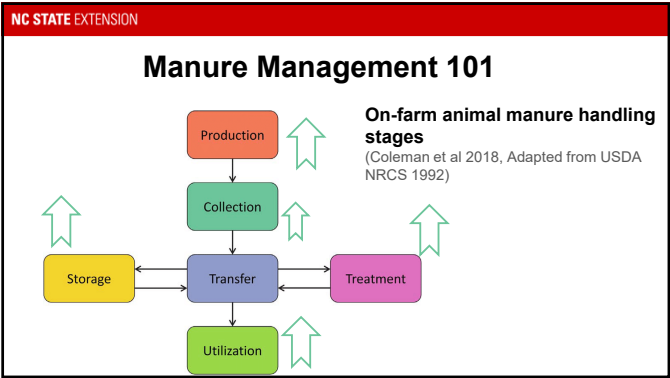
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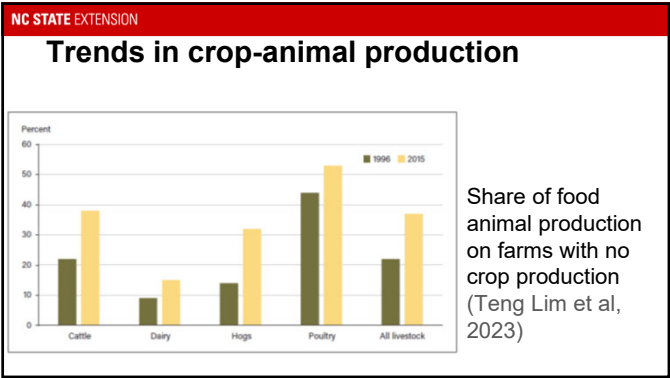
Manure Management 101



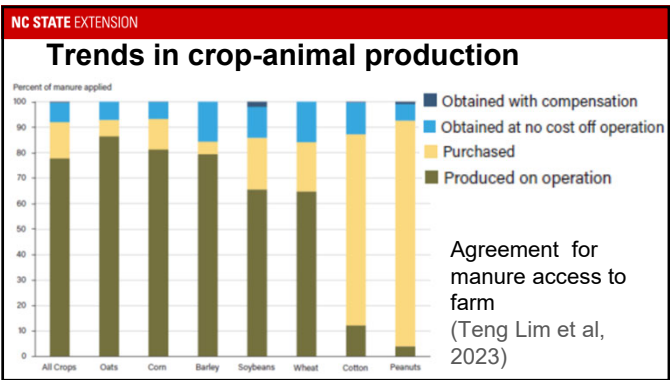
Four component model of animal-crop production system

3

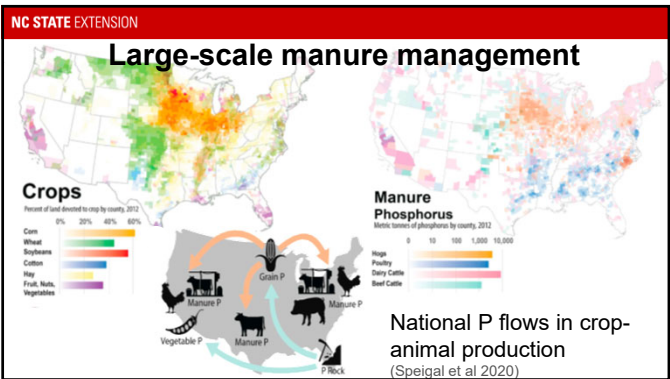




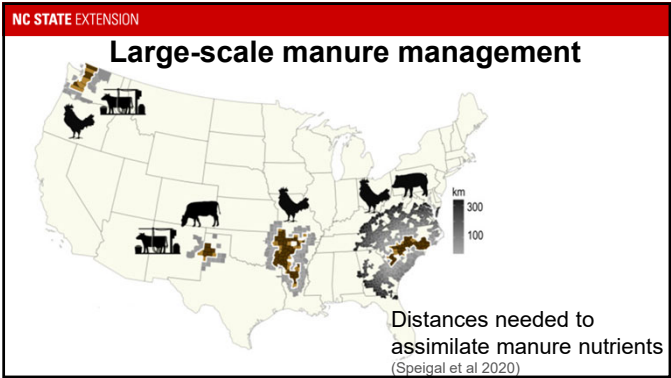
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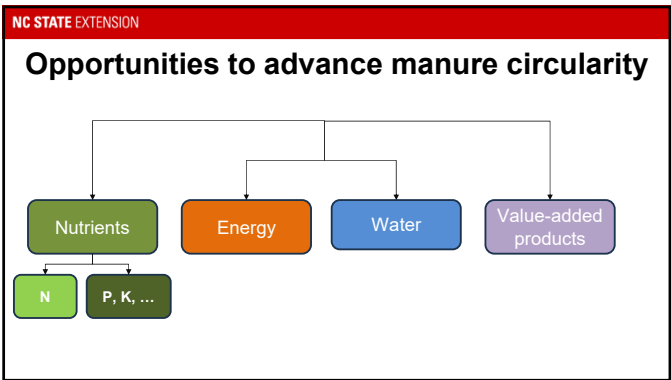
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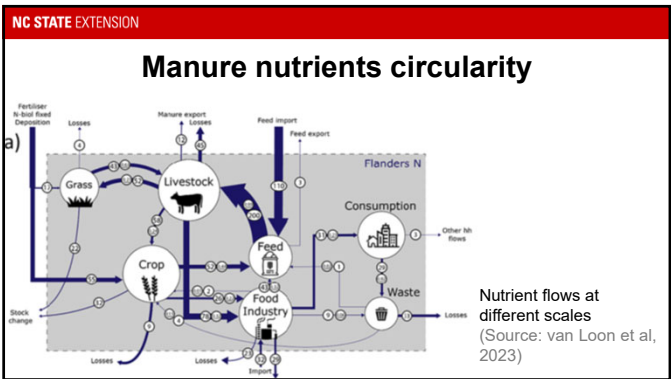
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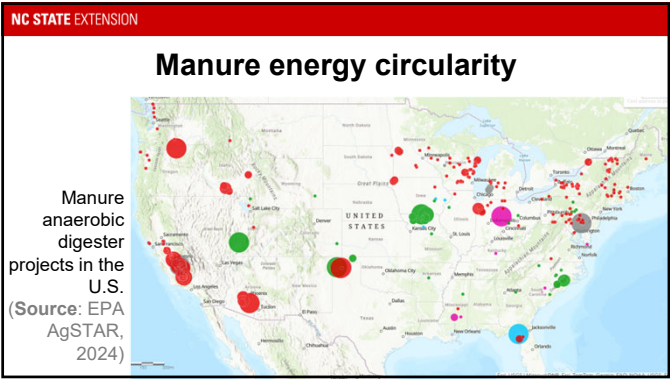
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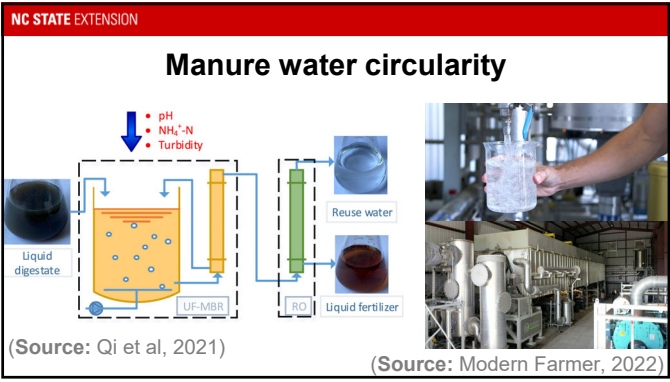
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Final thoughts

- Scale is critical to circularity measurement
- Economic benefits continue to be a barrier to many circularity interventions.
- Metrics are key to measure progress and quantify trade-offs

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Thank you!

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