Livestock and Crop Integration

Although raising livestock and crops together used to be the norm, in the United States farm production has shifted to increased specialization because of presumed management efficiency. Considerable research, however, has found that reintegrating animals into crop production systems yields considerable benefits in improved soil health, reduced risks associated with raising a single product, reductions in fertilizer input and animal feed costs, reduced labor and machinery costs, and increased carbon sequestration. Grazing cropland improves soil fertility by increasing soil microbial density and organic matter due to the addition of manure. It can also provide significant benefits for farmers who use cover crops and no-till methods as the animals can graze the cover crops while lightly integrating their manure into the soil with their hooves. Managed grazing and crop rotation techniques work best with this approach to avoid over-compaction of the soil.

Benefits

- Improved soil health
- Improved soil microbiology
- Lower fertilizer input and animal feed costs
- Reduced labor and machinery costs
- Increases carbon sequestration
- Increases biodiversity
- Improves ecosystem function and resiliency
- Lower economic risks because of diversification

Potential Considerations

- Might require training and time to learn what will work best for your operation
- Need to move the animals from place to place regularly to avoid overgrazing and over-compaction of the soil
- Might need an initial investment to fence in areas if needed
- Requires more monitoring and maintenance to do well

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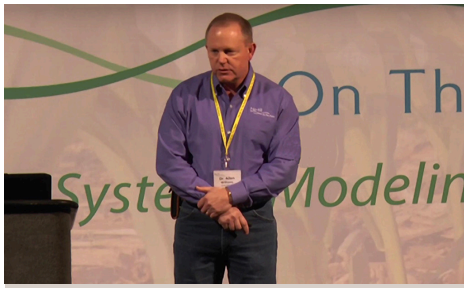
Resources

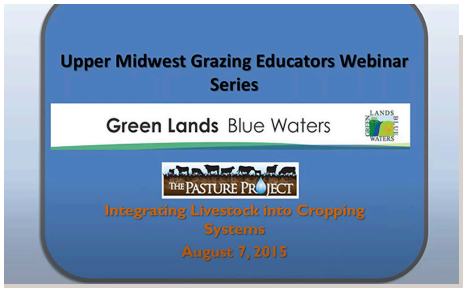
Integrated Crop & Livestock Systems

Benefits that can be attained by reintegrating livestock into a crop production system. https://bit.ly/3itxlU2



Your Keys to Building Soil Health

A presentation by Allen Williams on "Adaptive Grazing and Livestock/Cover Crop Integration." https://bit.ly/3gdgQdj



Grazing Educator Webinar Series: Integrating Livestock Into Cropping Systems

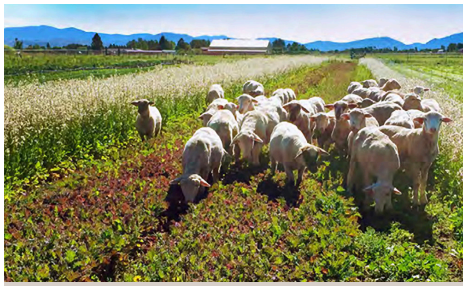
Current trends in row crop agriculture including integrating livestock. https://bit.ly/2RECayN

Integrating Livestock and Crops: Improving Soil, Solving Problems, Increasing Income

Free publication by NCAT ATTRA. https://bit.ly/3zhs5so

Grazing Cover Crops: A How to Guide

Leveraging soil health and creating economic benefits through winter livestock grazing. https://bit.ly/3iqShuN



Food Safety Considerations for Integrating Livestock into Produce Cropping Systems

Free Publication by NCAT ATTRA. https://bit.ly/3zeUjE6

Research

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Clark, Sean & Gage, Stuart. (1996). *Effects of free-range chickens and geese on insect pests and weeds in an agroecosystem*. American Journal of Alternative Agriculture. 11. 39 – 47. https://bit.ly/2SjHsA2

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https://bit.ly/3f3LmW7