

Workshop Title: Integrating livestock into organic field cropping systems

Speaker(s) & their title(s): Ruth Knight, Organic Consultant Inc.

Executive Summary

Ruth Knight offers her knowledge about the different possibilities of integrating livestock into organic field cropping systems, focusing on regenerating soil, while producing healthy and abundant food.

Detailed Notes

Introduction

This workshop emphasizes the impacts that the addition of livestock has on cropping systems. The opportunities are diverse and flexible (e.g. laying hens, beef, pigs (at different stages), poultry, sheep and goats). The idea behind it is to emulate the aspects of natural systems, which need intensity but also rest to restore themselves. The speaker insists on the importance of fencing and water management.

Principles of soil regeneration fitting livestock

1. Minimum of soil disturbance – tillage: using animals instead, long term storage of carbon
2. Keep soil covered 24/7
3. Living roots as much as possible: bring more macronutrients, cover crop can be used before/after crop
4. Diversity: multi-species cover crop
The cover-crop selection is based on those aspects: warm season/cold season, broadleaves/grasses, while answering the following question: what is the resource you are trying to address? It also has to have a right balance between high carbon and high nitrogen.
5. Integrating livestock: building fertility and fixing land issues
 - ⤴ example of Brown's ranch in North Dakota: two similar fields with livestock/no livestock and use of refractometer to check on nutrient quality

Where to begin?

- ⤴ Partnership with your neighbours that have livestock
- ⤴ Integrated livestock fall seeded biennials

Examples of integrated livestock

- ⤴ bale grazing – brings nutrients where you want them (where do you want them?), for every \$1 cattle consume you will have \$0.85 deposited somewhere on the farm
- ⤴ meat bird for daily move – water and feed on top of the henhouse
- ⤴ broilers, net profit of \$12.25
- ⤴ retrofit trailer – layering system
- ⤴ pastured pork - \$658 net profit per hog
- ⤴ grass finished beef \$1633 net profit for 1200lb animal of 735 days of age
- ⤴ sheep – finish on cover crops, \$190 net profit per lamb, \$270 net profit per ewe
- ⤴ interseeding cover crops in cash crops
- ⤴ Brown's ranch mindset: be really conservative (capital, spending resources) but innovative (land generation)

Questions and answers

Q: What are the advantages of beef over other livestock options?

A: The speaker does not think there is one. The herd has a lot of impact but it requires skill set and resources.

Q: Which cattle breed would you use?

A: Dexter or black angus.

Q: Would hogweed or wild parsnip hurt the cattle?

A: No, it would not.