

# THE NORTH PEACE APPLIED RESEARCH ASSOCIATION IS EXCITED TO HOST A 3-DAY SCHOOL ON REGENERATIVE FARMING & RANCHING DEVELOPED & TAUGHT BY THE SOIL HEALTH ACADEMY & DR. KRIS NICHOLS

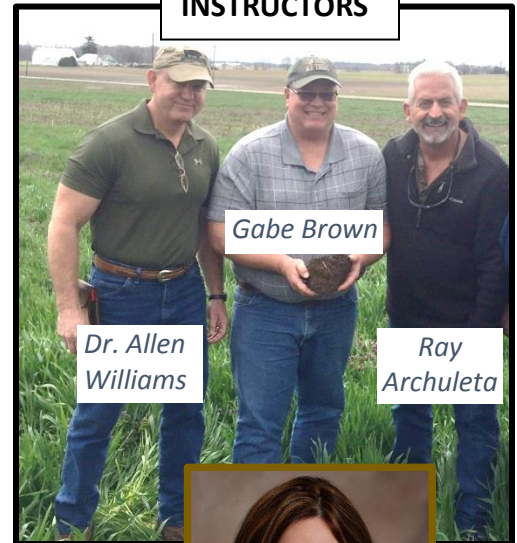


## COURSE OUTLINE

The school will be 50% classroom and 50% “hands-on” in the field.

1. Soil Health demonstrations:
  - a. Aggregate stability
  - b. Infiltration test
  - c. Rainfall simulator
  - d. SCUM test
2. Understanding the 4 ecosystem processes that are critical for soil function:
  - a. Capturing soil energy
  - b. The water cycle
  - c. Biogeochemical nutrient cycle
  - d. Community dynamics/diversity
3. The concepts of biomimicry:
  - a. Does your Farm/Ranch run on Sunlight?
  - b. Does your Farm/Ranch use only the energy it needs?
  - c. Does your Farm/Ranch fits form to function?
  - d. Does your Farm/Ranch recycle everything?
  - e. Does your Farm/Ranch reward cooperation?
  - f. Does your Farm/Ranch bank on Diversity?
  - g. Does your Farm/Ranch demand local expertise?
  - h. Does your Farm/Ranch curb excess from within?
  - i. Does your Farm/Ranch tap the power of limits?
4. Strategies of Agroecology
5. Principles of soil health:
  - a. Limit chemical, physical, and biological disturbances
  - b. Armor on the soil surface
  - c. Diversity
  - d. Living root in the soil as long as possible
6. Animal/Insect integration
7. Identifying and Addressing resource concerns:
  - a. Increase crop diversity
  - b. Provide soil surface armor
  - c. Build soil aggregates
  - d. Improve the water cycle
  - e. Integrated Pest Management

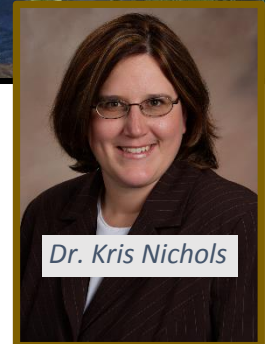
## INSTRUCTORS



*Dr. Allen Williams*

*Gabe Brown*

*Ray Archuleta*



*Dr. Kris Nichols*

- f. Build soil organic matter
  - g. Nutrient cycling
  - h. Enhance pollinators
  - i. Adjust carbon/nitrogen ratios
  - j. Wildlife winter food & shelter
  - k. Livestock integration
8. The strategy and logistics of designing biological primers (polyculture cover crop mixes):
- a. Multispecies mixes
  - b. Intercropping
  - c. Polycropping
  - d. Pollinator strips/predator strips
  - e. Cash crops
  - f. Pasture cropping
9. Adaptive multi-paddock grazing:
- a. Power of stock density
  - b. Recovery periods
  - c. Compounding
  - d. Diversity
  - e. Disruption
  - f. Cascading effects
10. Farm and ranch financial planning and management
- a. "Cowculator"
  - b. Pastured swine calculator
  - c. Pastured poultry calculator
  - d. Pastured egg-laying calculator
  - e. Sheep calculator
11. Ranch/Farm economics: Stacked Enterprises
- a. Annual cash crops
  - b. Biennial cash crop
  - c. Perennials
  - d. Orchards
    - i. Jams/jellies
    - ii. Cider
  - e. Bees
  - f. Pastured pork
  - g. Pastured laying hens
  - h. Pastured broilers
  - i. Grass finished lambs
  - j. Grass finished beef
  - k. Other pastured livestock
12. Direct marketing
- a. Creating ecological financial resilience
  - b. Using the waste stream from one enterprise to fuel the profits of another
    - i. Pastured pork
    - ii. Pastured laying hens
    - iii. Pastured broilers
13. Ecological nutrient management
- a. Inorganic soluble state model vs. ecological based model

- b. Soil assessments
    - i. Using biomimicry/green chemistry (Haney test)
    - ii. Earthfort/biological assessment
    - iii. PLFA test
  - c. Interpretations
14. Social aspects of soil health
- a. Understanding the social, cultural, psychological context of soil health
  - b. Implementing holistic management
  - c. You cannot have ecological integrity without human integrity