**Intro. to Section 1 (1k – Integrated Cropping System: Conservation Planning based on Soil Health Principles)**

**Planning Process:**
1. Identify Problems & opportunities
2. Determine Objectives
3. Inventory Resources
4. Analyze Resource Data
5. Formulate Alternatives
6. Evaluate Alternatives
7. Make Decisions
8. Implement the Plan
9. Evaluate the Plan

**Resource Concerns:** Soil, Water, Air, Plants, Animal, Energy & Human (Economics, Social, Cultural).

Healthy soils have water-stable aggregates & surface cover that protect the Soil from water & wind erosion; other benefits include: increased available water, nutrient cycling, etc.

Healthy soils: improve Water & Air quality; grow healthy Plants, which provides habitat and food for Animals; require less Energy (e.g., fuel, fertilizers) inputs; & helps fulfill Human needs (economic, social, etc.). Sustainability is the result.

**Biodiversity with minimal soil disturbance drives Soil Health.**

Producers must use a dynamic cropping approach, where management decisions are adjusted annually based on changing climatic & economic conditions. Also, use a net return per rotational acre to measure profitability of various crop rotations.

**SOIL HEALTH IS THE KEY TO SUSTAINABILITY**

**Best Mgt. Practices:**
- Crop Rotation
- Cover Crop
- Nutrient mgt.
- IPM
- Irrigation Water mgt.
- Conservation Tillage
- Pollinators
- Laser leveling
- Prescribed Grazing
- Other: wind break, etc.

Evaluate the crop rotation effect (i.e., yield and quality) & optimize the crop synergy of your system.

**Divert Crop Rotation**
e.g., spring or summer

**Cover Crop cocktail mix**
e.g., late summer, fall & early spring

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**Evaluation Process:**
Evaluate the crop rotation effect (i.e., yield and quality) & optimize the crop synergy of your system.