

# The Power of Diversity

(i.e., plants are collaborating, not competing)

## Cover Crop Cocktail Example:

Sunflower (1 lb), Soybean (15 lbs), Cowpea (10 lbs), Turnip (1 lb), Radish (2 lb), Proso Millet (3 lbs), Pearl Millet (3 lbs), Corn (1 lb), Squash (1 lb) and Canola (1 lb). (photo and cover crop cocktail mixture from Jay Fuhrer, NRCS District Conservationist in ND)



Refer to **Managing Cover Crops Profitably, 3<sup>rd</sup> Edition**, for planning considerations below

### Cultural Traits

#### Tolerances:

- Heat
- Drought
- Shade
- Flood
- Low Fertility
- Type: Biennial, Cool Season Annual, Long-lived perennial, Summer Annual, Short-lived Perennial, Winter Annual.
- Hardy Through Zone
- Habit: Climbing, Upright, Prostrate, Semiprostrate, and Semiupright.
- pH preferences
- Best Established: Early, Mid or Late Spring, Summer, Fall & Winter.
- Minimum Soil Temp. for successful germination & establishment.

### Planting

#### Considerations:

- Cost
- Planting Depth
- Seeding Rate
- Drilled or Broadcast
- Inoculant Type
- Reseeds: Reliably, Usually, Sometimes or Never

### Performance and Roles:

- Legume N Source
- Dry Matter Production
  - N Scavenger
  - Soil Builder
- Erosion Fighter
- Weed Fighter
- Good Grazing
- Quick Growth
- Lasting Residue
  - Duration
  - Forage Value
  - Seed or Grain
- Cash Crop Interseeded

### Potential

#### Advantages:

- Subsoiler
- Free P & K
- Loosen Topsoil
- Control Nematodes and Disease
  - Allelopathic
  - Choke Weeds
- Attract Beneficials
  - Bears Traffic
  - Short Windows

### Potential

#### Disadvantages:

- \* Increased Pest Risks (Insects, Nematodes, Crop Disease)
- Management Challenges (Hinder Crops, Establish, Till-Kill, Mow-Kill, Mature Incorporation)

\* NOTE on Increased Pest Risk: “Overall, growing a cover crop rarely causes pest problems, but certain cover crops may contribute to particular pest, disease or nematode problems in localized areas, for example, by serving as an alternate host to the pest.” (quote: page 65 of Managing Cover Crops Profitably)