**Example Cover Crop: Rye**

**Planning considerations:** Crop Rotations, Minimum-Till (No-Till), Irrigation Water Mgt., Nutrient Mgt., Integrated Pest Mgt., Demonstrations, etc.

**Cover Crops Assessed (Chart 1):**
- Annual ryegrass, Barley, Oats, Rye, Wheat, Buckwheat, Sorghum-sudangrass, Mustards, Radish, Rapeseed, Berseem clover, cowpeas, Crimson clover, Field peas,
- Hairy vetch, Medics, Red clover, Subterranean clover, Sweetclovers, White clover and Wooly pod vetch.

**Chart 2 continued (additional information):**
- **Total N:** Total N from all plant.
- **Soil Builder:** Organic Matter yield and soil structure improvement.
- **Good Grazing:** Production, nutritional quality and palatability. Note: feeding pure legumes can cause bloat. **Duration:** Length of vegetative stage. **Harvest Value:** Economic value as forage, seed or grain. **Cash Crop Interseeded:** Rate: how well the cover crop will perform with an appropriate companion crop.

**Planting (Chart 3 B):**
- **Species:** Rye
- **Cost ($/lb.):** 0.18 – 0.50
- **Cost/ac:** $25.00
- **Depth (in.):** 4 – 6
- **Seeding Rate (lb/acre):** 60 – 120
- **Drilled (D) or Broadcast (B):** (D)
- **Inoculant Type:** n/a
- **Reeeds:** (S) The recommended inoculant for each legume
- **Established:** Early/Mid Late Spring, Summer, Fall & Winter. Minimum Soil Temperature: 34 F (i.e., for successful germination & establishment; pg. 69)

**Cultural Traits Chart 3A continued:**
- **Type:** Biennial, Cool Season Annual, Long-lived perennial, Summer Annual, Short-lived Perennial, Winter Annual. Hardy through Zone 3 See USDA Hardiness Zone Map pg. 1 (NFT = Not Frost Tolerant). **Habit:** Climbing, Upright, Prostrate, Semiprostrate, and Semiupright. **pH preferences:** 5.0 – 7.0, pg. 69.
- **Established:** Early/Mid Late Spring, Summer, Fall & Winter. Minimum Soil Temperature: 34 F (i.e., for successful germination & establishment; pg. 69)

**Potential Advantages Chart 4A:**
- **Soil Health:**
  - Free P & K
  - Loosen Topsoil
  - Nematodes
  - Disease
  - Allelopathic
  - Choke Weeds
- **Soil Reduces:** Rates a cover’s ability to fight pests by suppressing or limiting damage from nematodes or soil pathogens (i.e., by allelopathic action).
- **Soil Reduces:** Rates a cover’s ability to fight pests by suppressing or limiting damage from nematodes or soil pathogens (i.e., by allelopathic action).
- **Attract Beneficials:**
- **Bears Traffic:**

**NOTE on Increased Pest Risk (Chart 4 B):** “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.” pg. 65 (Refer to the above-mentioned guide, for individual cover crop overview/narratives).

**Increased Pest Risks:** Relative likelihood of a cover crop becoming a weed, or contributing to a likely pest risk. **Mgt. Challenges:** Incorporation will be easier when a stand is killed before maturity or after some time elapses between killing and incorporation (pg. 65).

**Info. Source:** Managing Cover Crops Profitably, 3rd Edition; Charts are on pages 66-72; rudy.garcia.2009

Agronomy Tech Note 76 (http://www.nm.nrcs.usda.gov/technical/handbooks/iwm/nmiwm.html)