### Conservation Practice: Cover Crops

<table>
<thead>
<tr>
<th>Cover Crop</th>
<th>Type/when</th>
<th>Benefits</th>
<th>Plant With</th>
<th>Termination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Field Peas</td>
<td>Summer Annual, broadcast and incorporate by raking</td>
<td>N source, weed suppression, adds biomass</td>
<td>Oats</td>
<td>mow, disc (after full bloom) or winterkill</td>
</tr>
<tr>
<td>Oats</td>
<td>Cool season annual, allow for 10 weeks of growth, seed densely if broadcast seeding</td>
<td>Suppresses weeds, nurse crop, adds biomass, nutrient scavenger, allelopathic</td>
<td>clover, peas, vetch</td>
<td>winterkill, mow while still in vegetative state</td>
</tr>
<tr>
<td>Buckwheat</td>
<td>Summer or cool season annual, fast growing (70-90 days to maturity), not frost tolerant, follow early vegetables, precede a fall crop</td>
<td>weed suppression, phosphorous scavenger, quick cover, nectar source</td>
<td>vetch (as a nurse crop)</td>
<td>terminate 7-10 days after flowering, easy to terminate with a board</td>
</tr>
<tr>
<td>Red Clover</td>
<td>Short lived perennial</td>
<td>N source, green manure, soil builder, forage, insectary</td>
<td>vetch</td>
<td>till/chop/mow in spring after blooming starts</td>
</tr>
<tr>
<td>Hairy Vetch</td>
<td>Summer or winter annual, winter hearty</td>
<td>N source, smothers weeds</td>
<td>rye, clover</td>
<td>mow, strip till, long vines can be difficult to terminate</td>
</tr>
<tr>
<td>Winter Wheat</td>
<td>Winter annual, late summer/early fall (2 weeks earlier than rye), drill seed</td>
<td>N scavenger, weed suppression, provides harvest option, soil builder/prevents erosion, nurse crop for clover, rye</td>
<td>Plow, disc, or mow, leafer and slower to seed than rye</td>
<td></td>
</tr>
<tr>
<td>Rye</td>
<td>Cool season, fast growth in fall–seed into mid fall</td>
<td>Weed suppression, nitrogen scavenger, grows back in spring, allelopathic</td>
<td>vetch (adds back N) or legume</td>
<td>mow w/ sickle bar mower, timing is important before it matures</td>
</tr>
</tbody>
</table>

Other Cover Crops: cowpea, sorghum Sudan grass, barley, radish

### What are your Needs?
- Nitrogen
- Organic Matter
- Soil Structure
- Weed Control
- Reduced erosion
- Insect Pest Management
- Moisture Conserving

### What is your Niche?
- Winter Fallow
- Summer Fallow
- Small Grain Harvest
- Full Year Fallow
- Relay cropping/overseeding
- Other?

### Tips
- Start small
- Consider planting method
- Plan for termination
- Consider moisture levels when terminating (terminate earlier in dry conditions)
- Rotate cover crops to manage disease
- Try using a tarp to terminate a cover crop by occultation
Ideas:
Plant lettuce after a spring pea crop
Overseed oats into a stand of beans or broccoli
Follow corn or beans with a mix of rye and vetch
Plant buckwheat after early broccoli and before late spinach
Plant oats in late summer/early fall to winterkill for spring mulch
Notes:

Terms:
Allelopathic: slows germination and growth of weeds
Terminate: To kill a cover crop so it can be planted with a main crop
Nurse Crop: Planted with a slower growing crop to help it reach maturity
Catch Crop: A cover crop that absorbs excess nitrogen in the soil
Scavenger: A cover crop that takes up nutrients and brings them to the soil surface when incorporated back in
Occultation: Using a tarp to terminate a cover crop by starving it from light

This project amplifies outreach of conservation programs and resources to historically underserved farmers in Minnesota and Wisconsin. Through workshops, field days, webinars, and personal connections, Conservation Connections taps into a team of seasoned and experienced farmers serving as Connectors, linking underserved farmers to resources within the Natural Resources Conservation Service (NRCS). Historically underserved farmer groups include African Americans, Asian, Latino, Indigenous, veterans and beginning farmers. Conservation Connections is led by Renewing the Countryside in partnership with the Sustainable Farming Association.

The Minnesota Agricultural Water Quality Certification Program (MAWQCP) is a voluntary opportunity for farmers and agricultural landowners to take the lead in implementing conservation practices that protect our water. Those who implement and maintain approved farm management practices will be certified and in turn obtain regulatory certainty for a period of ten years.

Through this program, certified producers receive:

• Regulatory certainty: certified producers are deemed to be in compliance with any new water quality rules or laws during the period of certification
• Recognition: certified producers may use their status to promote their business as protective of water quality
• Priority for technical assistance: producers seeking certification can obtain specially designated technical and financial assistance to implement practices that promote water quality

Contact mda.mawqcp@state.mn.us