Wheat and Spelt, Triticale

Triticum aestivum
X triticosacale

Wheat and its close relatives are common cover crops in the Northeast. They are winter-hardy and are often found in rotation schedules with vegetable crops to prevent winter soil erosion. These small grains are good for reducing root rot in vegetables. In the spring, wheat, spelt and triticale grow more slowly than rye and are therefore easier to incorporate. Triticale's primary advantage over wheat and triticale is that it can be sown earlier to produce more fall growth. Spelt's advantages are that it grows better in low nitrogen soil, is more competitive with weeds in the spring, and heads a week later.[1] In the spring, the decision to take the crop to harvest is an option.

Land preparation	Prepare a firm, weed-free seedbed. Additional fertilizer is not needed.
Seeding rate	If you are accustomed to raising small grains, use half the amount the conditions would usually call for.[2] Wheat 70 lb/ac. Spelt 80 lb/ac. Triticale 80 lb/ac. For weed suppression, increase rate by 30%.[3] If broadcasting, increase rate by 30%.[4] If seeding late, increase by 50 to 100%.[5]
Seeding date	Wheat: Hessian fly-free date (mid-September) to October 1. Spelt: Hessian fly-free date (mid September) to October 10. Triticale: August 25 - September 25.[6] Triticale can be sown before the Hessian fly-free date. Spelt can be sown into October and in cool soil.[7]
Seed sources	Local farm seed dealer. Use quality seed with high germination and no weeds. Triticale: Rupp, Lakeview Organic Grain.
Maintenance	Little required, check for gaps in the cover crop and fill in.
Control	For best growth of the subsequent crop, control when the plants are beginning to regrow, at 6 to 8 inches. Glyphosate is effective once day temperatures exceed 50° F, and tillage works before the crown enlarges. For later control, incorporate after boot stage but before flowering (the window is typically one week occurring between May 20 and June 7).[8]

Björkman, T. and J.W. Shail. 2010. Cornell cover crop guide for wheat, spelt, and triticale. Cornell University. 2pp. Ver. 1.101029

Tips	When drilling, spelt can plug narrow, bent, or rough drop tubes. Drill triticale 1 - 1 1/4 inches deep to avoid frost heaving.[10] If there is a lot of fall growth (10 inches or more), matting is reduced by mowing or grazing to 6 inches. Winter wheat can be sown in April for use as a green manure. Nitrogen tie-up can occur if vegetable crops are planted too soon after incorporation.[11] The best nitrogen value is obtained if the plants are killed before the stems begin to elongate. Early control also makes a better seedbed because the crowns are smaller. Wait 2-3 weeks between incorporation and planting vegetables. If plans change and the crop is to be harvested, apply a springtime nitrogen topdressing at the G3-5 tillering phase[12]. Also consider overseeding with clover.

[1] Kim Cambell personal communication.
[2] Chuck Richtmyer, experience.
[3] Chuck Richtmyer, experience.
[4] Chuck Richtmyer, experience.
[5] Chuck Richtmyer, experience.
[6] Tom Kilcer email. Dates apply to Albany NY for winter cover.
[7] Campbell K.G. 1997. Spelt: Agronomy, breeding and genetics. Plant Breeding Reviews 15: 187-214
[8] David Benscher, personal communication.
[9] Anu Rangarajan, personal communication from research trials, June 18, 2008
[10] Tom Kilcer email.
[11] Cover Crops for Vegetable Production in the Northeast, L. J. Stivers et al., Information Bulletin 244, P. 2.
[12]http://ipmguidelines.org/FieldCrops/content/CH05/default-5.asp
[13] Campbell K.G. 1997. Spelt: Agronomy, breeding and genetics. Plant Breeding Reviews 15: 187-214
[14] Cornell guide for integrated field crop management. 2005.
[15] Martin, H. 2003. What is Spelt? OMARFA Bulletin http://www.omafra.gov.on.ca/english/crops/field/news/croptalk/2003/ct_0903a2.htm
[16] Sattell,R.,R. Dick, R. Karow, D. Kaufman, J. Luna, D. McGrath, and E. Peachy. 1998. Oregon Cover Crops: Barely, Oats, Triticale, Wheat (*Hordeum vulgare, Avena sativa, Triticosecale X, Triticum aestivum*) Oregon State Univ. EM 8692. http://extension.oregonstate.edu/catalog/html/em/em8692/
[17]Larson, E. 2004. Cover Crops Mississippi State Univerisity Extension Bulletin 1552. http://msucares.com/pubs/publications/p1552.htm