

Consider cereal rye if putting your garden to bed for the winter

Cereal rye makes an excellent cover crop for the garden during winter.

Posted on **September 26, 2014** by [Hal Hudson](http://msue.anr.msu.edu/experts/hal_hudson) (http://msue.anr.msu.edu/experts/hal_hudson), Michigan State University Extension

Fall is the time of year when gardeners are cleaning up plant debris from their gardens. One often overlooked practice before closing out the garden for the season is seeding the garden plot to the grain crop rye, *Secale cereal*, before leaving it until next spring.

The grain crop rye has a number of advantages gardeners need to take into consideration, including being a nutrient catch crop, erosion reducer, fits many rotations, provides plentiful organic matter, suppresses weeds, suppresses pests, and works well in companion crop or legume mixtures.

Rye is one of the best nutrient cover crop choices for gathering and holding (recycling) remaining (unutilized) nitrogen in the soil from previous crops. Rye brings potassium up through the soil profile to increase the concentration of exchangeable potassium near the soil surface. Rye's fibrous root system increases soil drainage and can help conserve late spring soil moisture. The fibrous root system of rye helps to reduce soil erosion. Rye holds soil loss to a tolerable level from the elements, mainly water and wind.

Rye is an excellent fit for home gardeners as it works in rotation with other garden vegetable crops. Rye works well as a strip cover crop and windbreak between vegetables. In fact, when used in strips between vegetable crops it creates a microclimate warming up the soil quicker so vegetables can grow faster.

Rye produces plentiful organic matter. There are a number of benefits to organic matter, including improved soil structure, increased infiltration and water-holding capacity, increased cation exchange capacity, or the ability of the soil to act as a short-term storage bank for positively charged plant nutrients, and more efficient, long-term storage of nutrients.

Rye has an allelopathic effect on many weeds, meaning it performs like a natural herbicide to inhibit germination of some weeds. Rye is known for outcompeting weeds, especially small-seeded, light-sensitive annuals such as lambsquarters, redroot pigweed, velvetleaf, chickweed and foxtail.

As a pest suppressor, rye reduces insect pest problems in rotations and attracts significant numbers of beneficial insects such as [lady beetles](http://www.ipm.msu.edu/biocontrol/beetles) (<http://www.ipm.msu.edu/biocontrol/beetles>). Fewer diseases affect rye compared to other cereal grains.

Rye is an excellent companion crop to mix with other legumes or grasses. Including legumes with rye helps offset rye's tendency to tie up nitrogen. Rye helps protect less hardy legume seedlings through winter. Some legumes that may be used in combination with rye include hairy vetch, crimson clover, medium red clover and mammoth red clover.

In the spring, rye should be terminated or killed at least 30 days prior to planting of the garden crop by tilling it under or by mowing and tilling it under the soil surface. Due to the allelopathic effect of

rye, it could slow the growth of some garden crops if not terminated soon enough prior to transplanting or seeding.

Educational information for this article is from "[Managing Cover Crops Profitably, 3rd edition](http://www.sare.org/Learning-Center/Books/Managing-Cover-Crops-Profitably-3rd-Edition) (<http://www.sare.org/Learning-Center/Books/Managing-Cover-Crops-Profitably-3rd-Edition>)", Handbook Series Book 9, a publication by [Sustainable Agriculture Research and Education](http://www.sare.org/) (SARE). This publication is available for [purchase or free download online](http://www.sare.org/) (<http://www.sare.org/>).

For more information from [Michigan State University Extension](http://www.msue.msu.edu/) on consumer or commercial vegetable production, contact Hal Hudson at 989-672-3870 or HUDSONH@ANR.MSU.EDU (<mailto:HUDSONH@ANR.MSU.EDU>).

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