

Cover Crops: Seed Suppliers and Information Resources

Most organic horticultural crop farmers recognize the central importance of cover crops for soil conservation, soil quality, and nutrient and weed management. However, it can be challenging for organic farmers to obtain the cover crop seeds they want, to find organic seeds, or to find them at an affordable price. The NOP requires organic seeds if commercially available; otherwise, non-GMO, untreated, conventionally grown seeds are allowed.

NOTE: When planting legume cover crops, be sure to inoculate the seeds with the appropriate strain of symbiotic Rhizobium so that good N fixation will occur. Most vendors of legume seeds provide the corresponding inoculant. Some carry pre-inoculated legume seeds (“rhizocoated”), which appear gray because of the natural clay carrier used. NOP allows rhizocoated seeds provided that no prohibited fungicides are also included in the treatment.

Cover Crop Seed

Alfalfa (<i>Medicago sativa</i>) 20 lb/ac	Hardy perennial legume
Barley, winter (<i>Hordeum vulgare</i>) 80 lb/ac	Winter annual grass
†† Barley, spring (<i>Hordeum vulgare</i>) 80 lb/ac	Cool season annual grass
*† Buckwheat (<i>Fagopyrum esculentum</i>) 70 lb/ac	Summer annual broadleaf
* Clover, Crimson (<i>Trifolium incarnatum</i>) 20 lb/ac	Winter annual legume
Clover, Red (<i>Trifolium pratense</i>) 12 lb/ac	Hardy Biennial-perennial legume
Clover, White (<i>Trifolium repens</i>) 10 lb/ac	Hardy perennial legume;
† Cowpea (<i>Vigna unguiculata</i>) 80 lb/ac	Summer annual legume
Fescue, Creeping Red (<i>Festuca rubra</i>) 20 lb/ac	Hardy, low-growing perennial grass
† Lablab bean 30 lb/ac	Tropical legume, manage as summer annual
† Millet, Browntop (<i>Panicum ramosum</i>) 30 lb/ac	Summer annual grass,
*† Millet, Foxtail (also German millet) (<i>Setaria italica</i>) 25 lb/ac	Summer annual grass
† Millet, Japanese (<i>Echinocloa crus-galli</i> ssp. <i>frumentacea</i>) 30 lb/ac	Summer annual grass
*† Millet, Pearl (also Cattail millet) (<i>Pennisetum glaucum</i>) 20 lb/ac	Summer annual grass

*†† Oats, Spring (<i>Avena sativa</i>) 100 lb/ac	Cool season grass
Orchardgrass (<i>Dactylis glomerata</i>) 10 lb/ac	Hardy perennial grass
* Peas, Austrian Winter (<i>Pisum sativum</i>) 80 lb/ac	Winter annual legume
*†† Peas, Field (<i>Pisum sativum</i>) 120 lb/ac	Cool season annual legume
†† Radish, Oilseed (<i>Raphanus sativus</i>) 15 lb/ac	Cool seasonal annual broadleaf
* Rye, Winter (<i>Secale cereale</i>) 100 lb/ac	Winter annual grass
Ryegrass, Annual (or Italian Ryegrass) (<i>Lolium multiflorum</i>) 25 lb/ac	Winter annual to biennial grass
Ryegrass, Perennial (<i>Lolium perenne</i>) 25 lb/ac	Hardy perennial grass Dwarf var, low-growing
† Sorghum-Sudangrass Hybrid (<i>Sorghum bicolor X S. sudanense</i>) 35 lb/ac	Summer annual grass
*† Soybean, Forage (<i>Glycine max</i>) 100 lb/ac Conventional: \$90.00 (Kaufman)	Summer annual legume
* Sweetclover, Biennial (<i>Melilotus officinalis</i> – yellow blossom; or <i>M. alba</i> –white blossom) 10 lb/ac	Hardy biennial legume
Timothy (<i>Phleum pratense</i>) 10 lb/ac	Hardy perennial grass
* Triticale (<i>Triticum X Secale</i>) 100lb/ac	Winter annual grass
* Vetch, Hairy (<i>Vicia villosa</i>) 30 lb/ac	Winter annual legume
Wheat, Winter (<i>Triticum aestivum</i>) 100 lb/ac	Winter annual grass

* These cover crops can be killed by mowing or roll-crimping after full heading or full bloom, and may be suitable for organic no-till cover crop management and vegetable planting. Cover crops *not* marked with * may regrow after mowing or rolling, and are not recommended for organic no-till management.

†, †† Summer plantings of these cover crops will winterkill at the first killing frost (single dagger), or hard (20°F) freeze (double dagger), thereby combining winter ground coverage with easier seedbed preparation for spring crops than with living winter cover crop.

Cover Crop Mixtures:

Benefits of cover cropping are often maximized by mixing one or more legumes and non-legumes. Usually, the grass component is planted at half the rate it is normally sown alone; the legume at 2/3 to $\frac{3}{4}$ its usual rate alone. Thus, seed costs for mixtures are somewhat higher, but not double those of monocultures.

Perennial cover crop seedings are often mixed with oats at 35-50 lb/ac, as the oats seems to help the slower-starting perennials get established.

Some per-acre seed cost estimates for combination cover crops include:

Rye (50 lb/ac) + hairy vetch (25 lb/ac)

Rye (50) + crimson clover (15)

Rye (40) + hairy vetch (20) + crimson clover (10)

Oats (50) + Austrian winter peas (50)

Oats (50) + other field peas (70)

Oats (50) + crimson clover (15)

Buckwheat (40) + soybean (50)

Sorghum-sudan (20) + cowpea (50)

Foxtail millet (15) + cowpea (50)

Oats (50) + red clover (10)

Oats (35) + orchardgrass (5) + red clover (8)

Annual ryegrass (15) + red clover (5) + yellow sweetclover (8)