

Choosing A Cover Crop

Grain Covers

Barley - Fast growing cover offers good weed suppression, deep soil effect, some insect and disease suppression, nutrient scavenging that includes N, P, and K. Flowers early, so needs to be worked early. May be less winter hardy than other grain cover crops.

Oat - Very quick cover for weed suppression, also gives some benefits in soil structure and nutrient scavenging. One of the easiest grains to work - can be fall planted (August) and let winter-kill, then tilled in spring; can also be spring sown and worked in just before seed set in late spring/early summer.

Rye - Rye grain- annual rye grass is different! Very good weed suppressor, and one of the best covers for breaking up heavy soils and improving tilth. Very good at scavenging N, P, and K. Can be planted late, but better nutrient scavenging when planted early. May inhibit crops - should be tilled in three weeks before planting to decrease allelopathy and nutrient tie-up. Can grow fast in spring, making it hard to work, but doesn't seed early.

Wheat - One of the most balanced grain covers, does a good job of weed, disease and insect suppression, scavenges N, P, and K reasonably well, improves soil workability. A bit slower to take off in the spring, it works in easier than rye. Work in two weeks before planting to decrease nitrogen robbing.

Legume Covers

Clover (annual) - Crimson clover doesn't runner like perennial clovers, and is easily controlled by tilling. A very balanced cover that both fixes and scavenges N and reduces erosive losses of P and K. Often the preferred cover where it can be used, but dislikes wet or acidic soils. Can be mechanically killed (hoed) and planted through for no-till. Can plant transplants immediately, but wait two weeks before seeding after killing or incorporating.

Fava - An impressively massive cover, can reach five feet before flowering in spring. Favas offer good biomass, good N fixing, and fair weed control. Must be seeded early, and not very winter hardy (about 10° F), but will tolerate wetter and poorer soils than clover.

Field Pea - Austrian field peas provide very high levels of N fixing and biomass, but don't run deep roots to capture lost nutrients or break soil. Despite the volume of leaf and vine, they are rather succulent and work fairly easily. Let them mature in spring through full bloom to provide early food for bees and to maximize N yield, then incorporate. Tolerate cold and wet soils.

Vetch - Hairy vetch is an excellent source of fixed N, and though slow to start off in the fall it races ahead in the spring, rapidly smothering weeds. Vetch can help suppress insects, and of the legumes is the best scavenger of P. Because of its easy mechanical kill and short residue lifespan, it is an ideal cover for no-till transplanting, though a bit thick to seed through right away. A significant amount of vetch seed is "hard", and can remain ungerminated the first year to sprout as a "weed" in following seasons.

Other Covers

Mustard and Arugula - The best pest and disease suppressing covers, and the most easily worked. They also scavenge N, P, and K, and provide good weed suppression. They improve soil tilth, but only in the upper layers. Mustard can be planted in fall as a winter-killed crop tilled in spring, or can be spring planted and incorporated shallowly as a biofumigant. Arugula is an overwinter crop; mow before flower and incorporate shallow as biofumigant. Wait at least ten days after incorporation before planting, and do not follow with a brassica crop.

Buckwheat - The standard for growing season fallow or interim covers, Exceptionally fast growth smothers weeds, and fibrous roots scavenge P, K, and Calcium while leaving a nice textured soil. Does well on poor soils, and is an excellent first step in developing a new garden area. Mow and incorporate just at full bloom.

Daikon Radish - A deep tap root breaks heavy soil. Scavenges deeper soil reserves of P and K. Hoe to kill, then plant through or incorporate. Do not follow with a brassica crop. Flowers earlier than many other cover crops.