

## **Cover Crop Mixes**

Genevieve Slocum, King's AgriSeeds

When you want a cover crop to meet several needs simultaneously, consider a seed mixture. The multiple species in a mix add biodiversity to your field, and you can often achieve a synergy of beneficial effects from the various species in the mix. For example, if you plant a mixture of winter annual legumes (such as hairy vetch or crimson clover) and an annual grass (such as oats), you can achieve a succession effect, in which the annual grass will grow quickly, will often winterkill, and provide sheltering biomass for the emerging legumes, which will take off in the spring. Legumes fix nitrogen and scavenge nutrients with a deep taproot, while grasses anchor soil and add organic matter with a dense fibrous root mass. Crops like Daikon Radishes, if planted early enough before the first killing frost, can be added for the "drilling" effect that the thick taproot can achieve. It grows downward and breaks up hardpans down to several feet below the surface and scavenges nitrogen and other leached nutrients, and grows a dense, weed-suppressing leafy canopy. Some cover crops like brassicas exude pest-deterring substances, while others, like rye, are allelopathic, secreting chemicals that inhibit some weed germination.

The more species you mix together, the greater the resilience of the system, since some species can take over when others are struggling or dying out. Working with mixtures gives us more flexibility, virtually guaranteeing, with the help of adaptive biodiversity, that we will be able to meet the unique needs of your location, soil and crop rotation.

In situations where we can let cover crops go to bloom, each species may also attract a different type of beneficial insect, which together can provide a powerful "break crop" to disrupt insect, weed, and disease cycles. In addition, many growers find that they benefit from the soil coverage and nutrient-catching capabilities of these crops and still get a cutting or two of high-quality forage from it. If this is your goal, we often recommend a higher seeding rate and fertilization at planting or spring green-up.

Our popular **3-Way Clover Mix** provides a unique balance of above- and below-ground growth. The medium red clover puts on ample leafy growth, the ladino white clover grows low with a fine root system, and the yellow blossom sweetclover contributes a thick, deep taproot the first year, and excellent vegetative growth the second year. The mixture feeds microbes and worms in the soil with the high volume of organic matter it leaves behind.

**Broadcaster** is another popular mix that balances the benefits of a wide variety of winter annual crops and is convenient for overseeding or interseeding in a growing crop to achieve a quick succession. It combines Annual Ryegrass, Crimson Clover, Common Medium Red Clover, Daikon Radish, and Yellow Sweet Clover for a combination of the deep thin fibrous root of grass and deep taproots and good canopy of the clovers and radishes. It is also excellent for early spring grazing or cutting for baleage before corn. **Spring Champion** provides the simple but powerful grass-legume combination, and takes advantage of two high-producing, vining legumes – hairy vetch and spring peas – for weed suppression and nitrogen fixation, while Jerry Oats produces quick biomass growth, which takes up available soil nitrogen as well as helping to shelter the slower-growing legumes as they first emerge. This is a wonderful weed suppressing mix which can be seeded in the early spring and left to grow a nitrogen rich green manure which can be plowed down for the planting of summer annual crops or vegetables. For vegetable growers it can be left into late spring and can be plowed down in strips as needed to accommodate successive early summer transplants. By putting a later-heading oat variety in the mix, it can be harvested just as the hairy vetch begins blooming and it can be used to make protein-rich baleage.

**CARGO**, a combination of Crimson Clover, Annual Ryegrass and Oats works well as a late summer/early fall planted cover crop or as a forage mix. The oats provide the early cover mentioned, and the crimson clover and annual ryegrass overwinter as a grass-legume cover. If using this as a forage combination, target a planting date in August and increase the seeding rate from 60#/acre (as recommended for cover crop use) to 120#/acre. This will give you a nice cutting of oats in October (or a possible fall grazing), and then the grass-legume mix can overwinter to provide a soil cover and produce nutritious forage for baleage in the spring or an early spring grazing option.

See our product guide or website for more mixes, or contact us about putting together a custom mix.