

Q. What kind of cover crop is best to use on clay soils?

A. Cover crops are a wise choice to improving soils. Cover crops are plants that are chosen to be deliberately turned into the soil in the spring in order to increase the percentage of organic material in the soil, improving soil tilth, water holding capacity, competition with weedy plant and nutrient availability. Some cover crops can assist with pest and disease control. When selecting a cover crop, consider what you are hoping to achieve.

Legumes are often planted when you want to increase the amount on nitrogen in the soil. Legumes that have been inoculated with a nitrogen fixing bacteria can add up to 200 pounds of nitrogen to an acre of soil, often as much as plants might need to following season. Annual legumes are a good choice for annual vegetable and flower gardens. Vetches are good winter cover crops on clay soils. The viny plants grow rapidly, with tendrils that allow the slender branches to climb on nearby plants for height. Lana Woolypod vetch is one of the best varieties, returning the most nitrogen to the soil. It does not tolerate frequent mowing, and the climbing ability can be a maintenance headache.. Avoid Hairy Vetch, as it does best in sandy soils.

Several legumes can also be used, notably fava bean and field peas (*Pisum sativum* ssp. *Arvense*), however the nitrogen return is not as great.

Clover is another possibility, with Berseem clover (*Trifolium alexandrinum*) most recommended. This plant can be cut back multiple times, with the clippings used as green manure and mulch. Clovers will fix nitrogen, but their advantage is the percentage of organic material they provide.

Non-legume cover crops

Mustards can also be planted as covercrops. These plants are good choices if nematodes, weeds or soil fungal problems have been a problem. Allelopathic chemicals are released when residues are incorporated into the soil. The seed from Black Mustard (*Brassica nigra*, Trieste) can also be used to make table mustard.

The time to plant cover crops is right now. The first winter rains have moistened the soil, but temperatures are not as cold as they will be in another month, encouraging more rapid germination. The cover crop plants will not appear to grow much in the winter months, but come spring they will grow rapidly. The latest you should plant is early November. Call the Master Gardener office if you need specific seeding rates or calculations for determining the amount of nitrogen you will be adding.