

# MATCHING COVER CROPS TO YOUR GOAL

## 1 SEQUESTER & CYCLE NUTRIENTS:

Cover crops can aggressively scavenge and cycle nutrients from deep within the soil profile making them available in the root zone of subsequent crops, improving yields and reducing runoff into sensitive watersheds.

## 3 CREATE A NITROGEN SOURCE:

Legumes produce additional nitrogen (N) by converting atmospheric nitrogen into nutrients plants can use.

## 5 PROVIDE WEED CONTROL:

Cover crops create competition for winter annuals and other weeds by shading them out, and preventing them from robbing valuable moisture and nutrients from subsequent cash crops (with the potential of lowering herbicide requirements per acre).

## 7 GENERATE EXTRA FORAGE:

Most cover crop species have the added benefit of being “dual-purpose”, meaning they provide both the benefit of a soil cover while providing a valuable forage source for livestock.

## 9 BUILD ORGANIC MATERIAL:

As cover crops grow, die and break-down, they add carbon to soil, feeding the soil food web, improving soil tilth, soil quality and water holding capacity.

## 11 CONSERVE SOIL MOISTURE:

By converting the sun's energy into growing biomass and the opportunity for organic matter, soil moisture is increased while reducing runoff, evaporation and overall variability from weather extremes.

## 2 REDUCE SOIL EROSION:

Extensive root systems cling to the top layer of soil creating an interior shield from erosion while top growth minimizes wind and water erosion.

## 4 BREAK UP SOIL COMPACTION:

Deep burrowing roots break through compacted soil to create pore space improving aeration, water movement and helping soil organisms flourish.

## 6 SUPPORT PEST CONTROL:

Most cover crops that suppress weeds during the winter months can consequently reduce nematode populations. Some cover crops deplete nematode populations by causing premature egg hatching. Other species provide control by eliminating winter annuals that historically provide a refuge for nematode populations. Still other cover crops contain chemicals that naturally fumigate at-risk soil environments.

## 8 ADD HABITAT FOR WILDLIFE & SHELTER POLLINATORS:

Fall, winter and spring cover crops create environments crucial for wildlife protection and nesting. Additionally, the biodiversity created by many cover crop systems have positive effects on native pollinators.

## 10 INCREASE SOIL STRUCTURE:

Actively growing plant roots increase mycorrhizal hyphae creating soil aggregates that act like a net capturing organic matter and soil particles. Aggregate stability builds soil structure that leads to better movement of nutrients, water and oxygen.

## 12 CREATE FINANCIAL VALUE:

The above benefits create the opportunity for better yield potential in cash crops, lower input costs and ultimately higher land values. In addition many states and counties offer cost-sharing initiatives for this important practice.