



**AMERICA'S  
ALFALFA™**

# Rotational Value of Alfalfa

## The Benefits of Adding Alfalfa into Your Crop Rotation

Determining crop rotations is a big decision. When considering which crop to plant, consider alfalfa as a source to fix nitrogen, improve yields and break disease and pest cycles.

### Reduce Nitrogen Costs

Adding a legume to crop rotations is beneficial because legumes have the ability to naturally fix nitrogen into the soil by converting atmospheric nitrogen into mineralized nitrogen. As shown in the chart, a good alfalfa stand in medium/fine soil with more than 8 inches of growth can leave 190 pounds of N per acre for the next crop.

Research shows these nitrogen credits are consistent regardless of the killing method used before putting in the next crop; *i.e. herbicide, tillage, and winter kill*. This allows farmers to take advantage of alfalfa's rotational benefits with minimal inputs.

### Increase Yields in Next Crop

Rotating alfalfa or other legumes into fields can improve yields for years to come. Researchers have found that corn following alfalfa produces more than fields planted continuously in corn. Wheat also improves yield and protein content when planted after alfalfa versus wheat-on-wheat.

Researchers from the University of Wisconsin found first-year corn after alfalfa yielded 19 percent (27 bushels per acre) more than continuous corn. Second-year corn after alfalfa and corn after soybeans yielded 10 percent (16 bushels per acre) more than continuous corn.

(Source: [http://corn.agronomy.wisc.edu/Pubs/JL\\_JournalArticles/643.pdf](http://corn.agronomy.wisc.edu/Pubs/JL_JournalArticles/643.pdf))

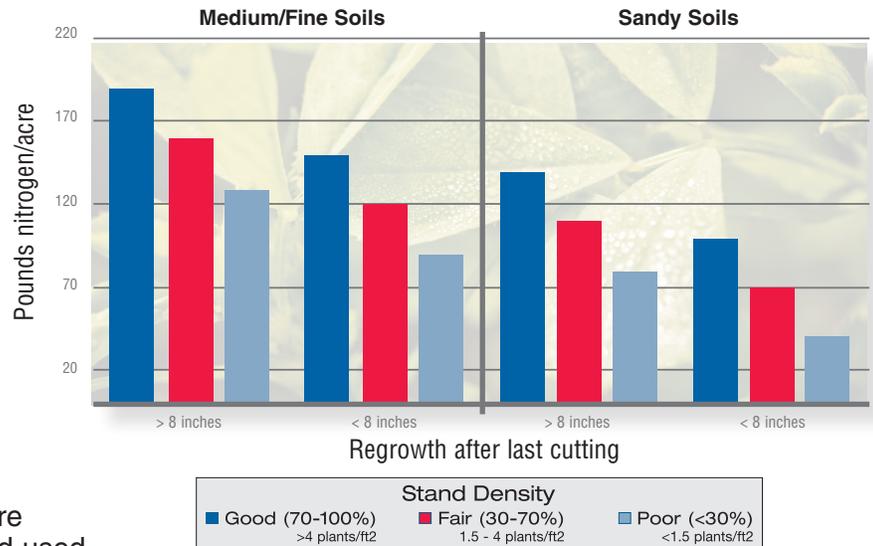
Farmers planting alfalfa can till in the last cutting of the fall. Next season those fields will have more organic matter, healthier soils and will be better protected from erosion.

### Break Disease and Pest Cycles

Continuously planting corn will result in a buildup of common corn diseases and pests in the soils. Break the life cycles of these yield robbers by incorporating alfalfa into crop rotations. Adding biologically diverse crop such as alfalfa to crop rotations interrupts and limits the growth of pest populations; including insects, nematodes, and disease caused by bacteria, viruses and fungi.

**These benefits plus economic returns** from growing the queen of forages makes alfalfa a smart choice to rotate with your other cash crops.

### Alfalfa Nitrogen Credits



Credit: University of Wisconsin extension.

