



Promoting Native Plants since 2003 Certified Women Owned Business Enterprise

Native Plants for Nitrogen Fixation

Nitrogen is a primary plant nutrient, vital for vegetative growth. Nitrogen can be found in multiple forms and is present in both the soil and the atmosphere. In order for it to be available to plants, it must be present in certain forms within the soil, most often as nitrate or ammonia. When not available, most plant species cannot thrive and will often endure yellowing foliage and stunted growth. Because some soils are deprived of this available nitrogen, some plants have amazingly adapted to form symbiotic relationship with soil-dwelling, nitrogen-fixing bacteria known as rhizobia. This relationship results in the formation of nodules on the roots of these plants. The rhizobia dwells in the nodules, and converts atmospheric nitrogen to ammonia, which then can be absorbed by the plant. Because of this process, the plants which form these relationships are called “nitrogen fixers” because they “fix” the soil with nitrogen. They are able to live in poor soils, where many other plants cannot. In fact, they can improve the soil for other plants that cannot fix nitrogen on their own! The most well-known nitrogen fixers are legumes (such as peas, beans, false indigo, honey locust, redbud, etc.) but other, non-legume plants also have adapted to be nitrogen fixers. Here is a list of plants that we grow that are nitrogen fixers. Please note, though we did not include cultivated, named varieties of these species, the associated “cultivars” are also nitrogen fixers!

PERENNIALS

<i>Baptisia species</i>	-	False Indigo
<i>Astragalus canadensis</i>	-	Canadian Milkvech
<i>Dalea purpurea</i>	-	Purple Prairie Clover
<i>Robinia pseudoacacia</i>	-	Black Locust
<i>Senna hebecarpa</i>	-	Wild Senna
<i>Thermopsis caroliniana</i>	-	Carolina Lupine

TREES AND SHRUBS

<i>Alnus incana ssp. rugosa</i>	- American Speckled Alder
<i>Alnus serrulata</i>	- Smooth Alder
<i>Amorpha canescens</i>	- Leadplant
<i>Amorpha fruticosa</i>	- False Indigo Bush
<i>Ceanothus americanus</i>	- New Jersey Tea
<i>Cercis canadensis</i>	- Eastern Redbud
<i>Comptonia peregrina</i>	- Sweet Fern
<i>Gleditsia triacanthos</i>	- Honey Locust
<i>Gymnocladus dioica</i>	- Kentucky Coffee-tree
<i>Myrica pensylvanica</i>	- Northern Bayberry
<i>Myrica gale</i>	- Sweetgale, Bog Myrtle
<i>Populus sp</i>	- Aspen species*
<i>Robinia hispida</i>	- Bristly Locust
<i>Wisteria frutescens</i>	- American Wisteria
<i>Wisteria macrostachya</i>	- Kentucky Wisteria

* Research is still being done on the contribution of Aspens to nitrogen fixation

6 Reasons to Use Native Plants in the Landscape
Provides beauty and four seasons of interest
Saves on water and fertilizer
Reduces disease
Attracts beneficial insects
Provides food for songbirds and butterflies
Restores and balances the ecology of Lehigh Valley
