

# Understanding Native Plants

## What are Warm and Cool-Season Plants?

The majority of plants in our catalog are warm-season, but the prairie maintains a population of cool-season plants as well. Cool-season grasses (CSGs) start growing in early spring and continue while cool temperatures and rain prevail. They go dormant during the hot summer months and then begin to grow again in the cool fall months if adequate moisture is available. Most CSGs will turn brown in extremely hot, dry conditions. Native CSGs can withstand this dormancy but introduced species may die. CSGs are best planted in early spring or late summer/early fall.



Cool-season native, Canada Wildrye



Warm Season native, Big Bluestem

Warm-season grasses (WSGs) break winter dormancy and begin growing in mid-spring. They thrive in the summer months with high temperatures and reduced rainfall. WSGs use water and nutrients efficiently and they have an extensive root system that keeps them green and growing during periods of drought. WSGs go dormant after the first hard frost but present a brilliant display of fall colors through the winter months making them valuable to any landscape setting.

Warm-season Prairie grasses focus most of their energy on establishing a root system during the seeding year. They emerge as thin, needle-like shoots and produce little top growth at first. By the end of summer, they will have produced a small clump of grass and possibly a small seed head. It is not until the second or third year that they produce large amounts of top growth.

Inexperienced growers may become frustrated and feel they have failed the first year; however, it is likely they have a good stand. Checking the stand in the fall for small clumps with a red or yellow cast. Patience must be a part of the sower's arsenal!

## Where to Plant?

Native plants are used in many applications for many different reasons. Their ability to adapt and survive extremely harsh conditions makes them a popular choice for consumers. Most plant species offered by Stock Seed Farms prefer full sun to partial shade in well-drained soils with a pH level between 5.5 and 8. Levels outside of this pH range will require amendments.

Native plants perform best in full sunlight with 6-8 hours of sunlight per day. As Sunlight decreases so does the performance, however; each plant will perform differently in different conditions. It is important that they get proper sunlight during the growing period.

Seedbeds free of weeds and old grass stands will produce the best outcome when planting new seed. Little success is found when planting into old stands, even if they are dead. Using a no-till drill to open a furrow and place the seed in direct contact with the soil at the correct depth.

## Weed Management



Shredding weeds in a new seeding

Weeds are the greatest cause of poor native grass and wildflower plantings. They challenge the small seedlings in two ways. First, they take away all necessary water and nutrients. Second, they shade and smother the small plants. Mowing or shredding often is very important the first year to keep the weeds from choking or smothering seedlings.

When mowing, the blade should be kept high to let the desired plants continue uninterrupted growth while keeping weeds from going to seed. Once grasses reach the four-leaf stage, 2,4-D can be applied but only to grass plantings. Do NOT use this herbicide on wildflowers. Care must be taken to apply the labeled rates because small grass seedlings can be burned or set back by over-application, especially on warm days over 75 degrees F.

## Suggested Uses:

### Grasses

Prairie grasses are sun loving plants, but a few will tolerate partial shade. We have successfully planted shorter grasses such as Buffalograss, Blue Grama, and Sideoats Grama between Christmas trees, fruit trees, and vineyards. Because native grasses are very efficient users of water, they do not compete with trees like cool-season grasses. Taller grasses such as Big Bluestem, Indiangrass, and Switchgrass make great windbreaks, snow fences, and sound barriers. Any of these grasses can be planted alone or blended with each other.

Virginia Wildrye and Canada Wildrye are two mid-height, native cool-season grasses that will handle shady conditions quite nicely. Hard Fescue and Chewings Fescue are both shorter bunch grasses that also thrive in shady areas. In heavily shaded areas it is best to use our Shady Mixture (page 28).

### Wildflowers

The majority of wildflowers bloom best in full sun to partial shade. Woodland types can flourish in shaded areas, but most need a certain amount of sunlight to flower. Wildflowers that are described to tolerate partial shade will do so, but it must be understood that plant height and bloom frequency will decrease with less sunlight. We recommend our Shadow Wildflower Mixture (page 27) for shaded areas.

## When to Plant

### Grasses

Management practices differ between warm-season grasses (WSGs) and cool-season grasses (CSGs). Although seedbed preparation is the same, planting dates are different. CSGs should be planted in early spring or late summer/early fall. Their seeding should be timed to take advantage of cooler temperatures and ample rainfall.

WSGs should be planted in late spring; or late fall in a dormant seeding. WSGs require soil temperatures of around 60 degrees to support germination. This usually happens between April 1-May 15, depending on your location. The later planting dates allow for early season weed control and a clean seedbed prior to seeding. Dormant seedings should be done in late fall, after the soil is too cold to support germination. In the Midwest, a good safe date is after November 1.

In the Midwest, when there is adequate rainfall, or if irrigation is available; stands of WSGs can be established as late as August 1. These plants need at least 60 days of growth before frost to establish themselves enough to handle cold winter temperatures.

Dormant seeding of WSGs in late fall offers natural stratification in the soil over the winter and also reduces spring workload. The seeds will remain in the soil, dormant, until the temperature is right to germinate them in the spring. This method can often fail, however, due to early spring weed competition. Some degree of weed control can be obtained in the fall prior to seeding, but any weed seeds in the ground will germinate in spring. Late spring planting allows for better weed control and thus, a higher rate of success. **We recommend late spring plantings of WSGs for best results.**

### Wildflowers

Wildflowers can germinate in somewhat cooler soils than WSGs, but Stock Seed Farms recommends planting them at similar times.

Annual wildflowers must be planted in spring; or in a late fall dormant seeding. These plants need to reseed themselves to ensure flowers the following year. Planting them too late in spring or summer may not allow the plants to mature and produce viable seeds.

Biennials (two year life span) can be planted in spring, late summer, or late fall. Again, late fall dormant seedings will work, but early spring weed competition can cause problems. A late spring planting with preceding weed control will give better results and less long-term management.

Inter-seeding into established prairie grass stands can give inconsistent results. However, with the right equipment and timing; it can be accomplished. Here are some guidelines to follow.

1. Established stands need to be thin enough to allow for new growth.
2. Plantings should be made early in spring, before grasses break dormancy and after old growth has been removed by burning, shredding, or raking.
3. Use a drill, preferably no-till, to inter-seed. This will best place the seeds in direct contact with the soil.

## Preparing to Plant

It is extremely important to eliminate any undesirable plants by either chemical or tillage treatments. Removing aggressive cool-season sod-forming grasses and other perennial weeds is necessary before planting prairie grasses and wildflowers. Several nonselective herbicides are available to this, with Round-Up being the most popular and least toxic. Always refer to product labels for proper usage of any chemical.

Planning and working a year ahead allows the best chance to control these problem species as it may take multiple herbicide applications to eliminate them. Eliminating cool-season sod forming grasses is best accomplished with a fall herbicide application, followed by additional treatments in early spring if necessary. If unwanted plants are not properly controlled, they can still invade the new planting in future years.

Repeated tillage is another option to control undesired plant species. In cases of cool-season, sod forming grasses it will take a full season of repeated tillage to get good control before planting. The first flushes of weeds in spring can be taken care of by light tilling once or twice to destroy growth before planting.

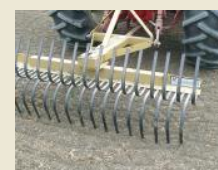
If planting with a no-till drill, dead thatch and plant material must first be removed by burning, raking or tillage. Getting seeds in direct contact with the soil may be the most important factor in successful native grass and wildflower seedings. The use of starter fertilizer with slow-release nitrogen is recommended. Even though native plants are extremely efficient and do not require as much water or nutrients, having extra nutrients available to young seedlings will stimulate healthy root and vegetative growth. On disturbed sites around new construction or water/sewer lines it is very important to add soil amendments. This helps germinate the seeds and maintain strong seedling vigor. In areas that may pose difficulty during establishment, soil tests are recommended to reveal existing problems.



*Burning*



*Tillage*

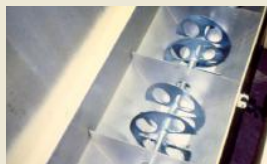


*Raking*

# Planting and Maintenance



No-till Native Grass Drill



Seed Agitators in Drill Box



Native Grass Broadcast Seeder



Erosion Blanket

## Planting Prairie Grass & Wildflowers

Many of the Native Warm-Season grass seeds are very light and fluffy. They are not flowable and will not work with most conventional seeders or drills. Large areas over one-half an acre are the easiest to plant with a native grass drill. These drills have special feeding mechanisms and agitators to evenly distribute the seeds. They are also capable of planting at a very uniform depth which is crucial. Easy-flow type fertilizer spreaders can also be used to distribute the seed.

Smaller areas can be broadcast seeded by hand. Mixing the seed with sand, sawdust, or vermiculite can add bulk to the seed making it easier to distribute evenly over the entire area. This is especially true with wildflowers. We suggest seeding one half of the seed over the entire area and then spread the other half in a second pass. This helps to ensure full coverage of the seedbed.

It is recommended to plant into a clean, firm seedbed that is free of clumps for optimum seed-to-soil contact. Loose soil dries out quickly at the surface compared to firm soil. Loose soil can also cause seeds to be planted too deep. A major cause of failed plantings is improper seeding depth. The correct planting depth of native grasses and wildflowers is  $\frac{1}{4}$  to  $\frac{1}{2}$  an inch deep. Wildflowers should be planted closer to  $\frac{1}{4}$  inch deep. It is not uncommon for a few seeds to remain on the soil surface, this is a good indication of proper planting depth.

To help incorporate soil around the seed at the correct depth, most native grass drills have packer wheels or a culti-packer roller behind them to firm the soil after the seeds have been planted. When broadcasting, seed must be incorporated into the soil by a light dragging, raking, or harrowing after planting. Pulling a straight disc lightly over the area will also work.

After incorporating seed into the soil, the seedbed must be firmly packed to press the soil tightly against the seed. A good measure of a firm seedbed is that when walking on it, one sinks in no more than  $\frac{1}{2}$  inch. A straw mulch or erosion blanket can be used if it is not applied too thick. Native grasses and wildflowers require sunlight at emergence and may smother if mulch does not allow light to penetrate. Straw mulch and erosion blankets help to keep soil moist longer and protect against erosion.

Leftover seed should be stored in a cool, dry place, as heat and humidity can cause germination loss. Properly stored seed can be planted the following year with minimal loss in germination.

### Erosion Control Blanket

Stock Seed Farms carries two sizes of Erosion Control Blanket to meet the needs of any size project. Use it on slopes or banks subject to wind or water erosion and also to help keep the soil moist longer.

**1.) 8 ft x 112 ft (100 sq yd) roll \$50.00**      **2.) 16ft x 112 ft (200 sq yd) roll \$100.00**      **Application staples (1/square yard) \$0.06 ea.**

These items are available for pickup only. Check with local landscape supply stores in your area if pickup at Stock Seed Farms is not an option.

## Care After Planting

All seeds need moisture to germinate. Wildflowers require more than grasses, but overwatering should be avoided. If possible, plantings should be kept moist during early stages of development. Light watering three or four times a week will ensure optimum germination. On large areas where irrigation is not possible, one or two timely rains will usually get things going. An extremely critical point for seedlings is about two weeks after emergence. If hot, dry conditions persist, supplemental watering will be beneficial.

Native plants can exist under extremely adverse conditions. Heat and drought are generally tolerated, but additional watering can enhance establishment and prolong bloom periods. However, over-watering can promote weeds and disease. Other than starter fertilizer, fertilizers are generally not required unless soils are extremely poor and low in organic matter. Too much fertilizer can cause plants to go vegetative at the expense of blooms and seed heads.

Plants that are utilized for pasture and grazing purposes will require annual applications of fertilizer based on soil tests to maintain productivity.



New Native Grass and Wildflower Seeding



## Long Term Management

Mowing or shredding can be done in late fall to eliminate dead material if desired, however; standing grasses will provide great beauty and valuable wildlife habitat if left over the winter. Any mowing or shredding in Spring should be done before grasses break dormancy (March-April).

As your prairie grass planting matures, weed problems will decrease. Perennial weeds may persist and may need to be controlled. This can be done by a properly selected herbicide or by hand weeding. Great care must be taken when hand weeding as small wildflower plants may be uprooted at the same time.

Another option for weed removal is a controlled burn. Spring burning (March-April) can help stimulate native grasses while controlling weeds, small trees, and cool-season grasses all at the same time. We do not recommend burning until after the second or third year. Burning too late in the Spring can hurt native grasses and wildflowers; it should be done before the plants break dormancy. Please, always observe local laws and obtain permits before burning your prairie!

Wildflower seedlings become much more competitive in the second and following years as more perennials develop. Commercial herbicides are available for over-the-top grass control on established flower stands. Consult your local garden store or county Extension office.



*Photo credit: Lisa Starkweather*

## Ensure Reseeding

We suggest waiting to clear your wildflower garden until all the species have matured and dried down. This will allow for a higher rate of natural reseeding. It may require some patience on your part, since wildflowers can look rather unkempt during their final stages. On the other hand, these same plants take on a whole new look with a background of fallen snow. Dead plant material can be mowed in early spring to clean it up.



*Waiting to mow flowers until early spring allows them to reseed!*

## Patience is a Virtue

In reconstructing a natural setting, it is important to remember that one cannot do in a single year that which took nature many lifetimes to create. The first year can be somewhat frustrating because the visual picture one has in mind does not always happen. The long-lasting perennials sometimes take two or even three years to bloom. While a few perennials may bloom the first year, it is strongly recommended to include annuals to guarantee color the first year. Annual wildflowers can also be used to give extra bursts of color in any year!

We must stress that weed competition is the number one cause of failure. Taking weed control measures before planting is the best and easiest way to create an environment for successful establishment.

Patience will be rewarded by an array of colorful wildflowers that will be enjoyed for many years. The display of color will change from year to year as different environmental conditions change. Some plants will go dormant while others bloom actively, a testimony to the incredible durability of the native landscape.



*Photo credit: Scott Kit*

## SUNDANCER



*Hottest Buffalograss Under the Sun*

**Sundancer is the  
most advanced  
Turf-type Buffalograss  
available to the turf  
industry today!**

Developed through a cooperative effort between the Native Turf Group and University of Nebraska, Lincoln; Sundancer fills the demand for a warm season turf with accelerated establishment and superior turf quality from seed. Sundancer is widely adapted and has proven itself a ***PREMIUM*** turf, suited to a variety of diverse environments.

In a three year trial at locations in AZ, CO, KS, NE, NM, UT, VA, and WA; Sundancer ranked first in all categories. Side by side comparisons with other commercially available varieties showed Sundancer a step above the rest.



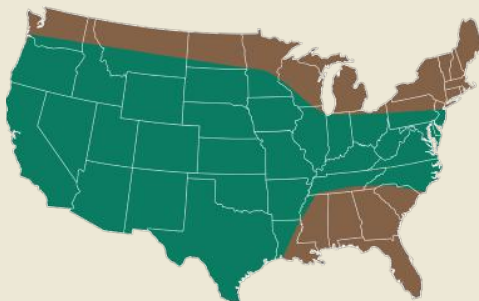
- **Faster Establishment from Seed (Similar to KY Bluegrass)**
- **Dark Green Color**
- **Disease & Insect Resistance**
- **Early Spring Green Up & Fall Color Retention**
- **Enhanced Density and Fine Leaf Texture**
- **Broad Adaption**
- **Lower Plant Height**

While Sundancer is improved in these areas, it retains the core low maintenance characteristics that make Buffalograss desirable.

- **Extreme Drought Tolerance**
- **Low Water & Nitrogen Usage**
- **Winter Hardiness**
- **Lateral Spread by Stolons**
- **Low Growth Habit**



Sundancer should be planted in locations receiving at least 6-8 hours of direct sunlight each day. Clay based or heavy soils are preferred. Sandy soils may require amendments to aid establishment. Results may vary over 5,000 ft. elevations. See pages 11-12 of this catalog for more information on establishment and management of Turf-Type Buffalograss.



*Area of Adaptation for Sundancer Buffalograss*

**Use Sundancer for residential lawns, commercial sites,  
parks & rec areas, golf courses, medians, or anywhere  
an attractive low maintenance turf is required!**

### **Sundancer™ Buffalograss**

*Buchloe dactyloides*

Life Span: Perennial

Height: 4-8 in Seeds/Lb: 40,000

Primed with KNO<sub>3</sub>

Seeding Rate: 2-3 lbs/1,000 sq ft



Buffalograss has become very popular as a low maintenance grass. It is a fine leaved, native prairie grass that has prospered on the Great Plains for centuries. Initially Buffalograss was used for pasture due to the low input requirements and vegetative production in summer months, but it didn't take long to realize the potential for this grass to be used as turf. Buffalograss has survived severe weather extremes and has evolved into a water efficient, sod forming grass with incredible durability and turf potential.

Buffalograss has both male and female plants. The male plants demonstrate flag-like pollen heads above the grass while the females produce the seed near the base of the plant. As a warm-season grass, it breaks dormancy in spring 2-3 weeks after cool-season grasses such as Kentucky Bluegrass and Tall Fescue. It stays green all summer with little or no care and returns to dormancy at first frost; turning a beautiful buff color until the following spring.



Male Plants with Flag-like Pollen Heads

In nature, Buffalograss germinates very slowly. Many times the seed can remain in the ground for over a year before starting to grow. Stock Seed Farms addresses this issue by priming our Buffalograss with Potassium Nitrate. This is a nontoxic process that breaks the seed's dormancy to allow germination in as little as 14 days. Color dyed seed designates this process.

Buffalograss spreads by "runners" or stolons across the soil surface like strawberry plants. Each stolon has several nodes along its length that shoot down roots to form a new plant and hold the runners in place close to the ground. With proper weed control and sufficient moisture these stolons can spread up to 5 inches within 50 days of planting. Buffalograss is not an aggressive pest that will take over existing vegetation. It will however, spread to bare areas or those with little competition.



Female Plant with Seed

Buffalograss is a sun loving prairie plant. We only recommend planting on sites that receive at least 6-8 hours of direct sunlight each day. The success of the planting will decrease as the amount of daily sun decreases. We do not recommend planting Buffalograss in areas of shade or in elevations above 5,000 ft. Buffalograss can be planted in most well drained soils. It does not perform well in coarse or sandy soils unless organic matter or compost is added to the site. It will not tolerate standing water for any length of time, and will not stand up to heavy traffic during its dormant period as it cannot repair itself. In areas of high rainfall and humidity, Buffalograss may lose out to more competitive plant species.

## Bowie™ Buffalograss

*Buchloe dactyloides*

Life Span: Perennial

Height: 4-8 in Seeds/Lb: 40,000

Primed with KNO3

Bowie™ possesses medium green color, fine leaf texture, good turf density, and a low growth habit. Bowie has improved color and height uniformity along with quicker establishment, winter hardiness, and earlier spring green up. It is adapted to a wide geographical range, but performs especially well in the northern part of the Buffalograss range. Bowie is not recommended for shady areas and results may vary above 5000 ft. It requires 6-8 hours of daily sunlight and prefers heavy or clay based soils. Sandy soils may require amendments to aid establishment.



Buffalograss is known for its low water usage, winter hardiness and low vertical growth habit. These traits reduce labor, irrigation, mowing, and fertilization costs. Bowie was developed by the Native Turf Group in cooperation with the University of Nebraska, Lincoln.

Use Bowie Buffalograss as an economical warm season turf, soil stabilizer or in any other utility application where low maintenance characteristics are desired.

Seeding Rate: 2-3 lbs/1,000 sq ft

## Cody™ Buffalograss

*Buchloe dactyloides*

Life Span: Perennial

Height: 4-8 in Seeds/Lb: 40,000

Primed with KNO3

Cody™ Buffalograss has proven itself over the years as the standard to which all other Buffalograss varieties are measured. Cody is widely adapted, but has performed exceptionally well in the south and southwest United States.

Cody provides the establishment, density, and drought tolerance that makes Buffalograss so desirable. Roadsides, industrial sites, common areas, and medians are all great places to use Cody. 6-8 hours of daily sunlight is required and heavy or clay soils are preferred. Sandy soils may require amendments to aid establishment. Results may vary above 5000 ft. in elevation.

Developed by the Native Turf Group in cooperation with the University of Nebraska, Lincoln; Cody's performance has established itself as an economical, dependable warm-season turf grass.

Seeding Rate: 2-3 lbs/1,000 sq ft



Courtesy of Mike Groenewold



\*For your convenience, Stock Seed Farms is selling our Buffalograss on a BULK pound basis. We guarantee to maintain a consistent, high standard of quality. We promise to provide Buffalograss with a purity of 98% or higher with germinations of 80% or higher.

# Buffalograss Herbicide Information

## 1. Weed Control in Buffalograss (1st Year)

- Round Up or other glyphosate herbicides can be used prior to seeding for existing weed/grass control. Check the product label for the waiting period before planting new seed.
- Pre-emergent herbicides can be used the first year, but ONLY applied after Buffalograss emergence. This can be done to control weeds that germinate later in the season.
  - Barricade (proflam) can be applied 60 days after spring seeding
  - Pendulum Aquacap (pendimethalin) can be applied 90 days after spring seeding
- Post-emergent herbicides that can be used safely on first year Buffalograss. Apply at seeding with sequential applications throughout the season. Do not apply more than the maximum seasonal rate as specified by the product label.

Product	Weeds Controlled
Drive XLR8 (quinclorac)	grassy weeds, broadleaves
Square One (carfentrazone+quinclorac)	grassy weeds, broadleaves
Solitare (sulfentrazone+quinclorac)	grassy weeds, broadleaves, sedges
Quicksilver (carfentrazone)	broadleaves
Tenacity (mesotrione)	grassy weeds, broadleaves, sedges
Dismiss (sulfentrazone)	grassy weeds, broadleaves, sedges

## 2. Weed Control on Established Buffalograss (After 1st Year)

- Round Up or other glyphosate herbicides can be used in the early spring or late fall on FULLY dormant Buffalograss to control perennial cool season grasses/weeds. Applications made to actively growing Buffalograss may result in stand reduction.
- Pre-emergent herbicides are strongly recommended on established Buffalograss stands. Best results are obtained with split applications for season long control. Do not apply more than the maximum seasonal rate as specified by the product label.
  - Specticle (indaziflam)
  - Barricade (proflam)
  - Pendulum Aquacap (pendimethalin)
  - Dimension (dithiopyr)
- Post-emergent herbicides that can be used safely on Buffalograss. Do not apply more than the maximum seasonal rate as specified by the product label.

Product	Weeds Controlled
ProductDrive XLR8 (quinclorac)	grassy weeds, broadleaves
Square One (carfentrazone+quinclorac)	grassy weeds, broadleaves
Solitare (sulfentrazone+quinclorac)	grassy weeds, broadleaves, sedges
Quicksilver (carfentrazone)	broadleaves
Tenacity (mesotrione)	grassy weeds, broadleaves, sedges
Dismiss (sulfentrazone)	grassy weeds, broadleaves, sedges

Using any herbicide in a manner inconsistent with the manufacturer's instructions can give inconsistent and undesired results. Always read the label prior to using any herbicide.

The above herbicide recommendations are based on trials performed by the University of Nebraska Turf Science Program 2010-2013.

# Establishment and Management Guide to NaTurf Brand Buffalograss

For more detailed information visit [www.stockseed.com](http://www.stockseed.com)



## Site Selection and Prep

- Grows best on well drained, non-sandy sites with 6-8 hours of sun under 5,000 ft. elevation. Soil pH of 6.0 – 7.5 is preferred.
- Prepare a firm, clean seedbed and roll or pack the soil so footprints sink no more than ½ inch deep (Fig.1).
- Use tillage only if necessary; a successful renovation can be achieved with aggressive vertical mowing (power raking).
- Use a turf ‘starter’ fertilizer at manufacturer’s recommended rate.
- If pre-emergent herbicides have been used previously on the site, check the product label for restrictions on newly planted seed.



Figure 1 – Firm Seedbed

## Planting the Seed

- Best results occur by placing seed (Fig.2) in good contact with the soil at 0.25 to 0.50 inches deep. Plant no more than ½ inch deep, a small amount of seed on the surface is ok and is a good sign you have not planted too deep.
- Rake, drill or cover seed with best method available, then roll or pack to insure excellent seed contact with the soil.
- Steps to renovation without tillage include:
  - 1) sequential applications of glyphosate herbicide
  - 2) vertical mow or power rake in 2-3 directions to remove dead vegetation
  - 3) bag or rake to remove debris
  - 4) broadcast Buffalograss seed
  - 5) vertical mow or power rake again, and finally
  - 6) roll or pack.
- Buffalograss can be planted in a late fall dormant seeding, however, our most successful plantings occur in May and June North of I-70 or March and April South of I-70. Soil temperature must be 55° F and increasing for germination.
- On non-irrigated sites, place the seed at the 1/2 inch depth, early in the season for best results.
- Seeding Rate: 2-3 lbs/1,000 sq ft on residential or golf courses, 1-2 lbs/1,000 sq ft on industrial sites, and 3-4 lbs /1,000 sq ft for soil stabilization. Look for 0.5 -1.5 seeds per square inch.
- If irrigating at establishment, water every day the 1st week, every other day the 2nd week, and every 3rd day the 3rd week after soil temperature reaches approximately 50°F. Water to wet the top 0.5 inches and do not water to the point of runoff.



Figure 2 - Buffalograss Seed



## Watering/Fertilizing/Mowing

- Water deeply and infrequently if necessary. Under normal conditions, an inch of water per month whether from rainfall or irrigation will sustain Buffalograss.
- Apply 1-3 lbs of actual N/1,000 sq ft per growing season to established Buffalograss in split applications. 1st application, 3 weeks after green-up and the second, 8 weeks later.
- Mow often during establishment at a height set to just remove the tips of the new Buffalograss leaves. This will encourage lateral spread (Fig.3) and reduce weed competition.
- Optimum mowing height of mature Buffalograss is 3.5 to 4.0 inches (Fig.4), but it can adapt to heights from 1.5 in. to not mowed, depending on desired appearance.
- Lower mowing heights require more frequent mowing and increased fertilizer and water needs.

## Weed Management

- Mowing frequently just above the height of the Buffalograss the first 4 to 5 weeks will minimize weed competition and increase Buffalograss density.
- Avoid frequent watering, over fertilizing, and scalping.
- When used in accordance with the manufacturer's label, herbicides are safe and can be very effective. If you are inexperienced in the use of herbicides, contact a licensed applicator for assistance.
  - At seeding, Tenacity (mesotrione) can be applied.
  - Thirty days after emergence, any of these products can be used: Tenacity, Drive XLR8 (quinclorac), SquareOne (carfentrazone+quinclorac), or Solitare (sulfentrazone+quinclorac) (Fig.5). Products with multiple active ingredients give a wider spectrum of control. Compare product labels with weeds present.
  - Pre-emergent herbicides for use on established Buffalograss include Specticle (indaziflam), Pendulum 3.3EC (pendimethalin), Dimension (dithiopyr), and Barricade 65WG (proflam).
  - Post-emergent herbicides for use on established Buffalograss include Drive XLR8 (quinclorac), SquareOne (carfentrazone+quinclorac), Solitare (sulfentrazone+quinclorac)
- Most products containing 2,4-D are currently not recommended due to potential Buffalograss injury and availability of safer options.
- **ALWAYS READ AND FOLLOW THE MANUFACTURER'S LABEL PRIOR TO USE OF ANY HERBICIDE.**



Figure 3 - Stolons



Figure 4 – 3.5" Mowing Height



Figure 5 –Solitare Treated



Figure 6 - Untreated Control



# SUNDANCER



Hottest Buffalograss Under the Sun





Credit: Licensed under CC BY-SA 3.0, "Puccinellia distans" by Kristian Peters

## Alkaligrass

*Puccinellia distans*

Life Span: Perennial

Height: 6-24 inches

Seeding Rates: 4 PLS lbs / Acre

Seeds/lb: 1,200,000

Cool Season, salt tolerant, perennial bunch type grass with a fibrous root system. Alkaligrass was discovered dominating salty areas of fairways in a Colorado golf course. Displays good color and density as a turf in salty or high pH settings. It works excellent in roadside mixtures as it can dominate in the high salt/ high pH areas and gives way to more aggressive varieties where salt is not an issue. Used in establishing cover on saline soils.



## Blue Grama

*Bouteloua gracilis*

Life Span: Perennial

Height: 8-12 in Seeds/Lb: 825,000

Varieties: Bad River, Common,

Hachita, Lovington

Seeding Rates: 4-5 PLS lbs/ac (Drilled)

1 PLS lb/4000 sq ft (Broadcast)

This native warm season bunch grass has fine blue-green leaves and a short growth habit. Seed heads are white to purple flags on upright stems. It is taller than Buffalograss, but is more drought tolerant. It grows in all well drained types of soil including sandy and alkaline. Uses include recreation areas, roadsides, medians, cover between small tree plantings, warm season pasture, turf, and mixing with Buffalograss for low maintenance areas with sandy or coarse soils.



## Eastern Gamagrass

*Tripsacum dactyloides*

Life Span: Perennial

Height: 3-9 ft Seeds/Lb: 6,000

Varieties: Common, Pete

Seeding Rates: 10-12 PLS lbs/ ac (Drilled) 1 PLS lb/2,000 sq ft (Broadcast)

This native warm-season grass grows in clumps that can be 1-4 ft in diameter. It is a moderately winter hardy grass found mostly in the eastern half of the U.S. and as far west as Colorado. Favoring moist, heavy soils it is a very productive hay grass with vigorous re-growth, high palatability, and good nutrition. Landscaping and ornamental purposes are also served with this grass.

## Big Bluestem

*Andropogon gerardii*

Life Span: Perennial

Height: 4-6 ft Seeds/Lb: 165,000

Varieties: Bison, Bonanza, Bonilla,

Kaw, Pawnee, Rountree, Sunnyview

Seeding Rates: 10 PLS lbs/ac (Drilled)

1 PLS lb/2,000 sq ft (Broadcast)

Many people call this the "King" of native grasses because of the quality and quantity of forage produced. It is a warm season, sod forming grass that prefers bottom land sites with good, well drained soils, but is adapted to many soil types. When left un-grazed or hayed, the mature plant turns a reddish purple color in the fall with a "turkey foot" seed head. In a mix with other warm season forages, or in a solid stand by itself, this grass provides excellent forage, palatability, and nutrition for all classes of livestock.



## Canada Wildrye

*Elymus canadensis*

Life Span: Perennial

Height: 3-4 ft Seeds/Lb: 115,000

Varieties: Common, Mandan

Seeding Rates: 10-12 PLS lbs/ ac (Drilled), 1 PLS lb/2,000 sq ft (Broadcast)

Canada Wildrye is a cool-season native, bunch grass. At maturity in July, the seed head is a nodding spike. A grass that prefers moist sites, it has good seedling vigor and rapid spring growth that aids in easy establishment and ground cover. This grass also has some shade tolerance and can grow in sandy soil types. It adds diversity to prairie mixtures and seed heads can be used in dried arrangements.



## Indiangrass

*Sorghastrum nutans*

Life Span: Perennial

Height: 5-7 ft Seeds/Lb: 175,000

Varieties: Cheyenne, Holt, NE 54,

Osage, Oto, Rumsey, Scout, Tomahawk

Seeding Rates: 8-10 PLS lbs/ac

(Drilled) 1 PLS lb/2,000 sq ft (Broadcast)

Indiangrass is a native warm-season, bunch grass. At maturity in September, this grass has a golden, plume-like head and reddish-yellow foliage making it one of the most beautiful of the native grasses. It is adapted to a wide range of soils, thriving on well drained bottom land, but can also grow in sandy soils. It is one of the most important native tall grasses for its palatable and nutritious forage for livestock. Other uses include valuable wildlife habitat, and a great landscape plant.





# Native Grasses



## Little Bluestem

*Schizachyrium scoparium*

Life Span: Perennial

Height: 2-3 ft Seeds/Lb: 260,000

Varieties: Aldous, Blaze, Camper

Seeding Rates: 8 PLS lbs/ac (Drilled) 1 PLS lb/3,000 sq ft (Broadcast)

This warm season bunch grass is native to 45 of the 50 states making it the most abundant of all native grasses. It turns a brilliant russet-red color in fall through winter. This grass grows well on uplands or lowlands over a wide range of well drained soils. Little Bluestem is used in low maintenance mixtures with other lower growing natives for recreational areas, golf courses, roadsides, and wildlife habitat. Because of its year round changing colors, it's a great choice for landscaping or ornamental purposes.



## Purpletop

*Tridens flavus*

Life Span: Perennial

Height: 2-5 ft Seeds/Lb: 465,000

Varieties: Common, Red River

Seeding Rates: 10 PLS lbs/ac (Drilled), 1 PLS lb/4,000 sq ft (Broadcast)

Purpletop is a perennial warm season bunchgrass generally found in meadows, roadsides, and open woodlands. This grass boasts a decorative pyramid shaped purple seed head in mid to late summer. It is best adapted to areas with more than 30 inches of annual rainfall and prefers well drained, infertile, shallow and rocky soils. Purpletop is tolerant of road salt so it often colonizes roadsides. Works well alone or in mixes with other warm season grasses. Soil stabilization, erosion control, water filtering, wildlife habitat, and landscape. It does not grow well in the extreme Southeast or Southwest U.S.



## Sand Bluestem

*Andropogon hallii*

Life Span: Perennial

Height: 4-5 ft Seeds/Lb: 113,000

Varieties: Champ, Goldstrike

Seeding Rates: 16 PLS lbs/ac (Drilled), 1 PLS lb/ 1,300 sq ft (Broadcast)

Sand Bluestem is a native warm season sod forming grass. Mature grass exhibits a golden yellow to reddish brown color in fall and winter. It grows extremely well in sandy range sites. However, it will also survive on heavier well drained soils. It can be used in grazing programs, for erosion control, or ornamental arrangements. Throughout the winter, it makes an excellent nesting habitat for many upland birds and small mammals.

## Prairie Dropseed

*Sporobolus heterolepis*

Life Span: Perennial

Height: 1-2 ft Seeds/Lb: 240,000

Varieties: Common

Seeding Rates: 6 PLS lbs/ac (Drilled), 1 PLS lb/5,000 sq ft (Broadcast)

Prairie Dropseed is a native warm-season, bunch grass. The globe-type seed head and long wispy leaves make it very eye catching in a landscape setting with other native grasses and wildflowers. This grass grows well in full sun and drier soils. It is an extremely low maintenance plant that can be used in mixes with other native grasses. Spacing plants 1-2 feet apart in a row can also make a natural border.



## River Oats

*Chasmanthium latifolium*

Life Span: Perennial

Height: 24-36 in Seeds/Lb: 90,000

Varieties: Common

Seeding Rates: 10 PLS lbs/acre (Drilled) 1 PLS lb/2,200 sq ft (Broadcast)

River Oats are a very useful native cool season bunch grass. They provide ornamental and decorative diversity to native grass and wildflower mixtures. They also provide wildlife habitat. They are also called Inland Sea Oats, but have no salt tolerance like regular Sea Oats. River Oats spread by short rhizomes and seed. There is some shade tolerance and drought tolerance, but they will perform best in moist soils and will tolerate some flooding.



Nebraska Statewide Arboretum

## Sand Lovegrass

*Eragrostis trichodes*

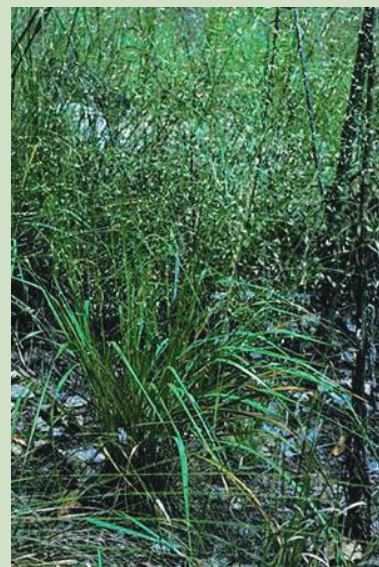
Life Span: Perennial

Height: 10-12 in Seeds/Lb: 1,300,000

Varieties: Bend, Common, NE 27

Seeding Rate: 1.5-2 PLS lbs/ac (Drilled), 1 PLS lb/15,000 sq ft (Broadcast)

This fine leaved bunch grass has seed heads with a purple cast on a dainty and open panicle. Sand Lovegrass breaks dormancy nearly two weeks earlier than most warm-season natives. Sandy soils are its favorite, but it will grow in heavy soils also. It can be seeded alone or it can compete well in mixes due to good seedling vigor and quick establishment even in low fertility soils. This grass is good to include in erosion control mixes for sandy areas.







## Sheep Fescue

*Festuca ovina*

Life Span: Perennial  
Height: 1-2 ft Seeds/Lb: 680,000  
Varieties: Common  
Seeding Rates: 20-25 PLS lbs/ac (Drilled), 1 PLS lb/1,000 sq ft (Broadcast), As cover in a native mixture: 10-15 PLS lbs/ac

Sheep Fescue is a cool-season, native bunch grass. This blue-green colored grass likes moist soils and does well in sandy or gravel soil types. It is adapted to central and northern latitudes of the U.S. It can be used as a cover crop with other native grass and wildflower plantings, erosion control, landscaping, or high elevation pasture.



## Switchgrass

*Panicum virgatum*

Life Span: Perennial  
Height: 4-6 ft Seeds/Lb: 389,000  
Varieties: Blackwell, Cave-In-Rock, NE28, Trailblazer  
Seeding Rates: 5 PLS lbs/ac (Drilled), 1 PLS lb/4,200 sq ft (Broadcast)

Switchgrass is a warm-season, native sod forming grass. In fall, this plant has a red cast and turns yellow-orange in winter. It is very winter hardy, drought resistant and has a moderate salt tolerance. It prefers lowland, moist sites, but is adapted to a wide range of soils and climates including sand. The height and extensive root system of Switchgrass can cause it to become dominant over time in mixtures with other natives. This grass can be used for soil conservation, warm-season pasture, hay, wildlife habitat, and has become a potential source for bio-energy production.



## Virginia Wildrye

*Elymus virginicus*

Life Span: Perennial  
Height: 2-3 ft Seeds/Lb: 96,000  
Varieties: Common  
Seeding Rates: 12-15 PLS lbs/ac (Drilled), 1 PLS lb/2,200 sq ft (Broadcast)

Virginia Wildrye is very unique among prairie grasses. It is a native cool-season, bunch grass. It is a medium height that has beardless heads that remain upright at maturity. This grass is widely adapted throughout the U.S. where it grows best in moist soils, tolerates upland sites, and likes shade or full sun. It can be planted alone or in pasture, habitat, or floodplain mixtures. Palatability and nutrition are very good when hayed or grazed before heading.

## Sideoats Grama

*Bouteloua curtipendula*

Life Span: Perennial  
Height: 12-18 in Seeds/Lb: 191,000  
Varieties: Butte, El Reno, Pierre, Trailway  
Seeding Rates: 10 PLS lbs/ac (Drilled) 1 PLS lb/2,200 sq ft (Broadcast)

Sideoats Grama is a native warm-season, sod forming grass with fine leaves and oat like seeds hanging down one side of the stem. It has a bluish-green color, sometimes with a purplish cast and cures to a reddish-brown or straw color. This plant is very long lived, growing best on upland soils and spreads readily by seeds and rhizomes. This grass is one of the most drought tolerant among the natives. Its uses include erosion control along highways and sloped areas, cover between trees in orchards, landscaping, and ornamental arrangements.



## Tall Dropseed

*Sporobolus compositus*

Life Span: Perennial  
Height: 2-4 ft Seeds/Lb: 759,000  
Varieties: Common  
Seeding Rates: 5 PLS Lbs/ac (Drilled), 1 PLS Lb/4,000 sq ft (Broadcast)

a.k.a Composite Dropseed. Tall Dropseed is a perennial warm season native grass that gets its name from the way its seed readily falls to the ground. A bunch grass, it is more drought tolerant than most other grasses of the bluestem prairie. It usually has a solitary to slightly branched seed head. It's forage is best in early spring. This species is most abundant on soils that are intermittently wet and dry and usually clay to somewhat silty.



Photo By: Mike Haddock

## Western Wheatgrass

*Agropyron smithii*

Life Span: Perennial  
Height: 1-3 ft Seeds/Lb: 110,000  
Varieties: Ariba, Barton, Flintlock, Common, Rosana  
Seeding Rate: 12-15 PLS lbs ac (Drilled), 1 PLS lb/1,800 sq ft (Broadcast)

Western Wheatgrass is a native cool-season, sod forming grass. The stems are blue-green and the leaf blades have rough, raised veins on the upper surface. It is drought resistant and winter hardy. This grass grows best on moist bottomland, however it will establish on heavier upland soils as well. It is used in range and waterway seedings usually in a mixture. Western Wheatgrass also makes an excellent erosion control plant.





# Native Wildflowers



## Blackeyed Susan

*Rudbeckia hirta*

Life Span: Biennial/Perennial  
Height: 1-2 ft Seeds/Lb: 1,450,000  
Bloom Period: May-September  
Seeding Rate: 1 oz/1,250 sq ft

This flower has yellow-orange rays with dark brown spherical centers. It is native to the eastern two-thirds of the U.S. This easy to grow flower is adapted to a wide soil range and will tolerate some shade. Blackeyed Susan adds to any cut flower arrangement.



## Blue Vervain

*Verbena hastata*

Life Span: Perennial  
Height: 2-6 ft Seeds/Lb: 1,400,000  
Bloom Period: July-September  
Seeding Rate: 1 oz/1,000 sq ft  
(Broadcast)

Blue Vervain produces blue to violet flowers on stiff spikes branched from its grooved stem. It prefers moist sites in gravel or heavy loam soils such as stream banks, ditches, roadsides, and damp woodland borders. Bumblebees are an important pollinator to this plant.



## Canada Milkvetch

*Astragalus canadensis*

Life Span: Perennial  
Height: 1-3 ft Seeds/Lb: 275,000  
Bloom Period: Summer  
Seeding Rate: 5 oz/1,000 sq ft

This native legume has petals with yellow or green tints to creamy, greenish white. It prefers moist sites and is not recommended in dry upland soils. Three to four years is typically the plants lifespan. Canada Milkvetch is used for erosion control, forage, restoration projects and wildlife habitats. It's also a source of nectar for bumblebees and its seeds are eaten by wild turkeys. We suggest planting this seed in a mixture with other native plants.

## Blanketflower

*Gaillardia aristata*

Life Span: Short-lived Perennial  
Height: 18-24 in Seeds/Lb: 156,500  
Bloom Period: Summer-Fall  
Seeding Rate: 4 oz/1,000 sq ft

This daisy-like flower has shades of yellow, bronze and scarlet on its petals. It is native to the northern Great Plains and Midwest. Blanketflower does well on any well drained soil in full sun or partial shade. Old flowers can be removed from the plant to prolong blooming. This easy to grow, short-lived perennial does not require fertilizer.



## Butterfly Milkweed

*Asclepias tuberosa*

Life Span: Perennial  
Height: 1-2 ft Seeds/Lb: 67,000  
Bloom Period: June-September  
Seeding Rate: 10 oz/1,000 sq ft

Viewed by many as one of the most attractive prairie plants, Butterfly Milkweed displays orange clusters of dainty flowers. It is adapted to a large range, and once established, its deep, thick root system provides drought tolerance. It does not spread as aggressively as Common Milkweed. It attracts butterflies and makes a desirable landscape plant when started inside, then transplanted. Blooms may not appear until 2-3 years after planting.

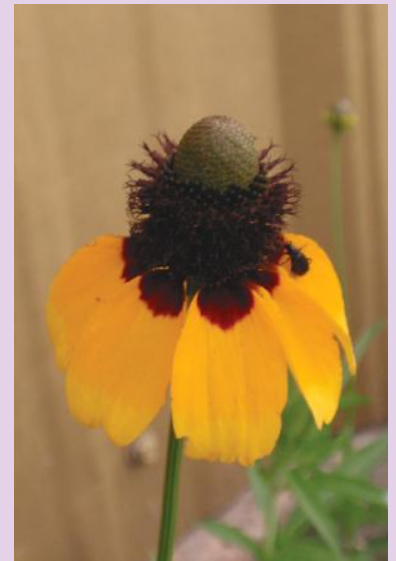


## Clasping Coneflower

*Rudbeckia amplexicaulis*

Life Span: Annual  
Height: 2 ft Seeds/Lb: 922,000  
Bloom Period: July-August  
Seeding Rate: 1 oz/1000 sq ft

Clasping Coneflower gets its name from the heart shaped leaves that clasp the stem. It features drooping yellow petals attached to a brown, cone shaped center. It adapts to most well drained soils in full sun, and will reseed itself.







## Common Milkweed

*Asclepias syriaca*

Life Span: Perennial

Height: 3-4 ft Seeds/Lb: 70,000

Bloom Period: Late Spring-Late Summer

Seeding Rate: 3 oz/1,000 sq ft

This flower has rounded leaves with rosy pink to purple flower clusters atop a stem filled with milky sap. Common Milkweed will grow in any soil type in sunny locations and can be aggressive. It's a favorite food of the Monarch butterfly larvae.



## Dwarf Red Coreopsis

*Coreopsis tinctoria, red*

Life Span: Annual

Height: 1-2 ft Seeds/Lb: 1,400,000

Bloom Period: Early Spring-Summer

Seeding Rate: 1 oz/1,000 sq ft

Dwarf Red Coreopsis has yellow centers with deep red flowers. A native to the central Midwest, it prefers low moisture areas in full sun to partial shade and grows in patches. Seeding in spring produces the best results as this allows the plant to produce viable first year seed necessary to reseed itself. This flower blooms early spring through summer. Typically this plant is an annual, but occasionally is a short lived perennial.



## Gold Yarrow

*Achillea filipendulina*

Life Span: Perennial

Height: 3-4 ft Seeds/Lb: 2,800,000

Bloom Period: Summer-Fall

Seeding Rate: 1 oz/2,500 sq ft

Also known as Fernleaf Yarrow, this plant is topped with gold flower clusters. Gold Yarrow grows well in most soils and climates throughout the U.S. It is taller than other yarrows making it good to use along borders or in mixtures with taller grasses. This perennial flower can become aggressive like other yarrows.

## Compass Plant

*Silphium laciniatum*

Life Span: Perennial

Height: 3-10 ft Seeds/Lb: 21,200

Bloom Period: June-August

Seeding Rate: 1 oz/1,000 sq ft

Also called Pilot Plant, this plant has leaves that orient themselves to point North and South. The yellow flowering heads are two to four inches in diameter and typically do not bloom until the second or third year. Compass Plant likes rocky, disturbed and sandy soils. This perennial from the sunflower family blooms mid-spring through early summer. It is often used as a perch for song birds in prairie settings.



## False Sunflower

*Heliopsis helianthoides*

Life Span: Perennial

Height: 3-4 ft Seeds/Lb: 60,000

Bloom Period: July-September

Seeding Rate: 8 oz/1,000 sq ft

Also known as Smooth Oxeye, False Sunflower is not a true sunflower as its name indicates. It is a long flowering plant with a multitude of yellow daisy-like flowers on stiff stems. This easy to grow flower prefers dry soils and will bloom the first year after planting. Its shorter height makes it useful for roadside seeding and disturbed sites.



## Golden Alexander

*Zizia aurea*

Life Span: Perennial

Height: 1-2 ft

Seeds/lb: 192,000

Bloom Period: Mid Spring-Early

Summer

Seeding Rate: 3 oz/1,000 sq ft

Golden Alexander displays bright yellow flowers and is a very beneficial plant for pollinators. They are a good source of nectar and pollen earlier in spring when there are few other blooming flowers. It prefers moist soils, but is tolerant of dry sites as well. Plant in spring; light shade is ok, but full to partial sun is best. Include this flower in wildflower gardens conservation plantings, and habitat restoration.



*Photo courtesy Nebraska Statewide Arboretum*



# Native Wildflowers



## Grayhead Coneflower

*Ratibida pinnata*

Life Span: Perennial

Height: 2-4 ft Seeds/Lb: 625,000

Bloom Period: June-August

Seeding Rate: 1 oz/1,000 sq ft

Yellow Coneflower and Pinnate Prairie Coneflower are other names for this long lived, drought tolerant, true prairie plant that is native to the tall grass prairies. A member of the daisy family, this flower has long yellow rays that droop from a spherical gray cone. Grayhead Coneflower grows in a wide range of soils in full sun to partial shade. It attracts butterflies and song birds making it a great background or border for any landscape or garden.



## Indian Blanket

*Gaillardia pulchella*

Life Span: Annual

Height: 1-2 ft Seeds/Lb: 153,000

Bloom Period: Late Spring-Early Fall

Seeding Rate: 4 oz/1,000 sq ft

Also known as Firewheel, this flower shows a close resemblance to its perennial cousin Blanketflower. A native annual, it has red flowers with yellow margins. Indian Blanket is adapted to a wide range of soils. It's a beautiful addition to any prairie planting.



## Lance-Leaf Coreopsis

*Coreopsis lanceolata*

Life Span: Perennial

Height: 8-24 in. Seeds/Lb: 210,000

Bloom Period: Late Spring-Summer

Seeding Rate: 4 oz/1,000 sq ft

Lanceleaf Tickseed is another name for this daisy-like flower. This plant has rich yellow eight ray flowers with four rounded lobes at their tips. The flowers are at the end of long, slender stems. Common to the prairies in the eastern U.S., it can be found in a wide range of soils and climates. This low maintenance native perennial wildflower has the possibility of blooming in the first year. Lance-leaf Coreopsis adds beauty to any cut flower arrangement.

## Illinois Bundleflower

*Desmanthus illinoensis*

Life Span: Perennial

Height: 2-4 ft Seeds/Lb: 60,000

Bloom Period: August-September

Seeding Rate: 8 oz/1,000 sq ft

Illinois Bundleflower is a deep rooted, native warm season legume. White to pink ball shaped flowers adds subtle beauty to the plants bush-like foliage. It is native to the southern Great Plains. This perennial plant is primarily used for erosion control and high protein wildlife food.



## Joe Pye Weed

*Eupatorium maculatum*

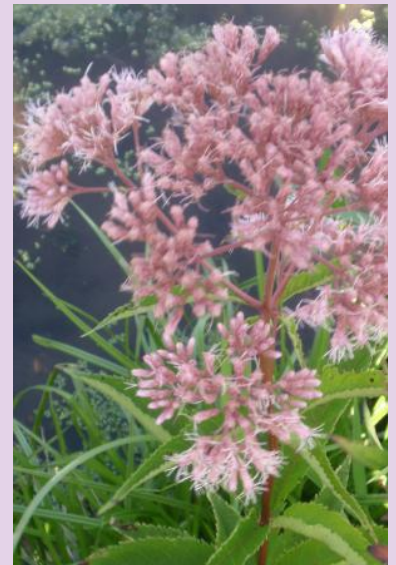
Life Span: Perennial

Height: 4-6 ft Seeds/Lb: 1,520,000

Bloom Period: Summer-Early Fall

Seeding Rate: 1 oz/1,600 sq ft

Joe Pye Weed displays flat top clusters of multiple branched flowers that rest on stems filled with five inch whorled leaves with saw toothed margins. The flowers are pink to red in color and irresistible to our winged friends. It prefers moist to semidry soils in full sun to partial shade. More fertile soils will produce taller plants, but they can be cut back to increase blooms and shorten height.



## Leadplant

*Amorpha canescens*

Life Span: Perennial

Height: 2-3 ft Seeds/Lb: 123,000

Bloom Period: Late June-August

Seeding Rate: 4 oz/1,000 sq ft

Leadplant is a shrubby legume that is named for the color of its leaves. It has small purple flowers clustered together in 4-6 in. spikes atop the robust 2-3 ft stems. This slow growing plant has an extensive root system and is adapted to a wide range of soils and locations in the central U.S.



Courtesy of Kristina Jensen NE Statewide Arboretum





## Lemon Mint

*Monarda citriodora*

Life Span: Annual

Height: 1-3 ft Seeds/Lb: 819,000

Bloom Period: Spring-Summer

Seeding Rate: 2 oz/1,000 sq ft

Also known as Lemon Beebalm, this member of the mint family emits a sweet citrus aroma from its lavender to white blossoms. Native to the southern Midwest, it prefers full sun to partial shade and drier soils. Lemon Mint easily reseeds itself and is very attractive to butterflies and moths.



## Mexican Red Hat

### Coneflower

*Ratibida columnifera, red*

Life Span: Perennial

Height: 1-3 ft Seeds/Lb: 737,000

Bloom Period: Summer

Seeding Rate: 1 oz/1,250 sq ft

These flowers resemble broad brimmed, high centered hats worn during Mexican fiestas with petals of yellow and reddish brown forming the brim. The plant is the same as Upright Coneflower except for its red petals with yellow borders. It is adapted to a wide area of the U.S. and is easy to grow. It can be planted as a garden border to attract butterflies.



## New England Aster

*Aster novae angliae*

Life Span: Perennial

Height: 2-4 ft Seeds/Lb: 1,300,000

Bloom Period: Early Summer-Frost

Seeding Rate: 1 oz/1,250 sq ft

One of the largest and showiest of wildflowers, New England Aster boasts clusters of violet-purple flowers with yellow centers atop leafy branches. It is native to the Central and Northeast U.S., but has adapted to a much wider range. This perennial Aster prefers moist sites in full sun to partial shade. It attracts butterflies, bees and songbirds. This excellent cut flower blooms early summer to frost.

## Maximilian Sunflower

*Helianthus maximiliani*

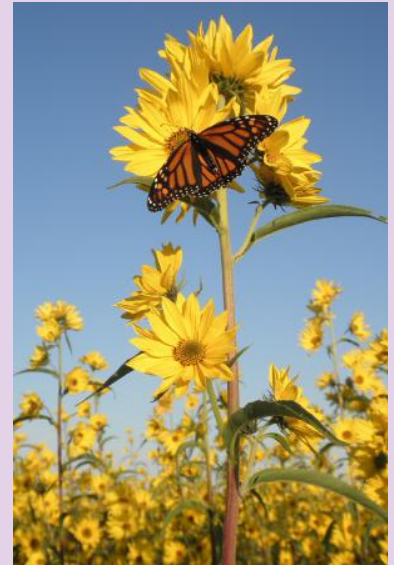
Life Span: Perennial

Height: 4-6 ft Seeds/Lb: 150,000

Bloom Period: July-October

Seeding Rate: 5 oz/1,000 sq ft

A member of the sunflower family, this flower has large showy yellow blooms. It can be found from the Great Plains to the eastern prairies of the U.S. Because of its height, this warm-season flower is often used as a privacy fence. It is also very useful in permanent food plots for upland birds and for erosion control. This perennial sunflower attracts migrating Monarchs and other butterflies.



## Missouri Primrose

*Oenothera missouriensis*

Life Span: Perennial

Height: 8-10 in Seeds/Lb: 80,000

Bloom Period: Late Spring-Early Fall

Seeding Rate: 2 oz/1,000 sq ft

Each of these flowers has four brilliant yellow petals that droop as they open in the evening and then fade the next day. Its prolific blooms start in the second year. Native to the southern Midwest, Missouri Primrose is drought tolerant and grows in rocky, sandy soils in full sun.



## Ohio Spiderwort

*Tradescantia ohiensis*

Life Span: Perennial

Height: 2-3 ft. Seeds/Lb: 160,000

Bloom Period: May-July

Seeding Rate: 1 oz/1,000 sq ft

"Blue Jacket" as it is sometimes called, has blue to lavender flowers with three petals that bloom early in the day. This native perennial wildflower is adapted to most of the eastern half of the U.S. and is commonly found on open prairies, woodland borders, roadsides, and disturbed sites. It prefers full sun to moderate shade in well drained to moist soils. It can become aggressive in fertile soils. The foliage can appear unsightly in mid-summer, but cutting back the vegetation after blooming can stimulate re-growth and autumn flowering.





# Native Wildflowers



## Pale Purple Coneflower

*Echinacea pallida*

Life Span: Perennial

Height: 2-3 ft Seeds/Lb: 115,500

Bloom Period: Late Spring-Summer

Seeding Rate: 5 oz/1,000 sq ft

This flower is similar to Purple Coneflower. It has long (1.5-3.5 in.) pale purple ray flowers curved toward the stem. Pale Purple Coneflower is native to the Midwest and will tolerate some shade. Some of its uses are medicinal as well as attracting butterflies and songbirds.



## Pitcher Sage

*Salvia azurea*

Life Span: Perennial

Height: 2-4 ft Seeds/Lb: 149,000

Bloom Period: July-September

Seeding Rate: 5 oz/1,000 sq ft

Pitcher Sage displays azure blue, two lipped flowers. This drought tolerant, warm season plant is widely adapted to well drained sites throughout the U.S. Hummingbirds, butterflies and other pollinating insects are attracted to this perennial.



## Purple Coneflower

*Echinacea purpurea*

Life Span: Perennial

Height: 2-3 ft Seeds/Lb: 115,500

Bloom Period: Early Summer-Fall

Seeding Rate: 5 oz/1,000 sq ft.

Purple Coneflower has long stems leading to single flower heads with half to one inch dome disks covered with golden spines surrounded by purple petals. Native to the Midwest and southeastern U.S., this flower grows best in full sun. Known for its medicinal uses, it also makes an exceptional, long lasting cut flower.

## Perennial Lupine

*Lupinus perennis*

Life Span: Perennial

Height: 1-2 ft Seeds/Lb: 22,700

Bloom Period: Spring-Summer

Seeding Rate: 8 oz/1,250 sq ft

Also known as Sundial Lupine, this flower boasts an elongated flower head stacked with blue to purple blossoms. It does not like heavy soils, therefore grows best in light soils with full sun and can tolerate drought. Perennial Lupine is great for attracting wildlife and butterflies.



## Plains Coreopsis

*Coreopsis tinctoria*

Life Span: Annual

Height: 2 ft Seeds/Lb: 1,650,000

Bloom Period: Late Spring-Summer

Seeding Rate: 1 oz/1,250 sq ft

Also known as Golden Tickseed or Calliopsis, this flower resembles a yellow daisy bearing red to maroon banding with a velvet texture. Plains Coreopsis is native to the central Great Plains and southern Midwest. It grows in clusters usually in low lying sites or ditches in full sun. Spring planting is required for this annual.



## Purple Prairieclover

*Petalostemum or Dalea purpurea*

Life Span: Perennial

Height: 1-3 ft Seeds/Lb: 290,000

Bloom Period: June-July

Seeding Rate: 4 oz/1,250 sq ft

Also known as Violet Prairie Clover, this flower is a native legume with a deep tap root. It shows a unique flower head that is cylindrical in shape with rose to purple blooms. It is native to the tall and mid-height prairies of the U.S. Purple Prairie Clover is a good plant to include in wildlife habitat mixtures.







## Rattlesnake Master

*Eryngium yuccifolium*

Life Span: Perennial

Height: 3-5 ft Seeds/Lb: 120,000

Bloom Period: Late Spring-Summer

Seeding Rate: 5 oz/1,000 sq ft

Also known as Button Eryngo, Rattlesnake Master boasts very unusual, sword-shaped foliage with unique white to blue, ball shaped flowers. Flower heads have a honey-like odor. It prefers moist, rich, light soils in full sun. Adding compost to heavy soils before planting will increase success. Rattlesnake Master can be used in cut flower arrangements or as an addition to any flower garden or prairie seedling.

Photo courtesy, Nebraska Statewide Arboretum



## Roundhead Lespedeza

*Lespedeza capitata*

Life Span: Perennial

Height: 2-4 ft Seeds/Lb: 128,000

Bloom Period: Late Summer-Fall

Seeding Rate: 4 oz/1,000 sq ft

Also known as Roundheaded Bushclover, this native legume has bushy green colored blooms that form atop a branched stem. The flower petals are white with a purple spot on the banner petal. Roundhead Lespedeza is quite drought tolerant and compliments any grass, forbs or habitat mixture.



## Showy Milkweed

*Asclepias speciosa*

Life Span: Perennial

Height: 2-4 ft Seeds/Lb: 85,000

Bloom Period: Late Spring-Summer

Seeding Rate: 3 oz/1,000 sq ft

Showy Milkweed has 10 - 25 point star shaped pink flowers on top of a milky, sap filled stem. The leaves are alternate and oval shaped, 6 - 8 inches long. Its seed pods are 3 - 5 inches long and are covered by short white hairs. This plant likes all soils in sunny areas and can be aggressive. Known for attracting Monarch butterflies, this Milkweed makes a unique addition to any wildflower planting.

## Rocky Mountain Bee Plant

*Cleome serrulata*

Life Span: Annual

Height: 2-4 ft Seeds/Lb: 64,000

Bloom Period: June-September

Seeding Rate: 8 oz/1,000 sq ft

This native annual produces pink to purple-pink flowers. Rocky Mountain Beeplant has thin seed pods that grow 2.5 inches in length, adding continued interest after blooming. It grows quickly and can tolerate sandy soils along roadways, meadows, and rangelands.



## Shell Leaf Beardtongue

*Penstemon grandiflorus*

Life Span: Perennial

Height: 2-3 ft Seeds/Lb: 273,000

Bloom Period: May-June

Seeding Rate: 5 oz/1,000 sq ft

It is commonly called Large Flowered Beardtongue. Tubular lavender and pink flowers adorn the single stem of this plant. The leaves have a waxy surface and are oriented opposite each other. Native to the eastern Great Plains, Shell Leaf Beardtongue prefers well drained light to sandy soils in full sun.



Courtesy of NE Statewide Arboretum

## Showy Partridgepea

*Cassia chamaecrista*

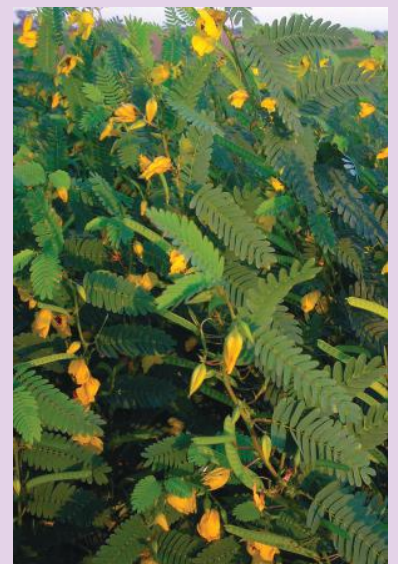
Life Span: Annual

Height: 6-24 in Seeds/Lb: 50,000

Bloom Period: July-September

Seeding Rate: 8 oz/1,000 sq ft

This native warm-season legume produces beautiful showy yellow flowers on short branches with fern-like leaves. Although this plant is an annual, the seeds form in delicate pea-like pods that burst open at maturity readily reseeding for the following year. Showy Partridgepea is good for soil building, roadsides, wildlife food, and will easily establish on disturbed soil sites.





# Native Wildflowers



## Sky Blue Aster

*Aster azureus*

Life Span: Perennial  
Height: 2-3 ft Seeds/Lb: 1,280,000  
Bloom Period: Summer-Fall  
Seeding Rate: 1 oz/1,000 sq ft

Sky Blue Aster has blue to lavender petals with yellow centers. It prefers slightly moist loam to dry sandy soils in sunny locations. This hardy perennial plant is a great addition to any mixture in prairie or garden settings.



## Smooth Penstemon

*Penstemon digitalis*

Life Span: Perennial  
Height: 2-4 ft Seeds/Lb: 400,000  
Bloom Period: Late Spring-Early Summer  
Seeding Rate: 1 oz/1,250 sq ft

Smooth Penstemon has clusters of pure white, tube-like flowers. The leaves are smooth and shiny with serrated edges reaching six inches long. It makes a great cut flower or welcome addition to any prairie landscape. This perennial flower attracts butterflies, hummingbirds and bees.



## Stiff (Rigid) Goldenrod

*Oligoneuron rigidum*

Life Span: Perennial  
Height: 1-5 ft Seeds/Lb: 770,000  
Bloom Period: Late Summer-Fall  
Seeding Rate: 2 oz/1,000 sq ft

Also known as Rigid Goldenrod, this native wildflower boasts attractive bright yellow flowers in small clusters. Stiff Goldenrod prefers full sun and well drained soils, but will tolerate rocky or sandy sites. Used for roadside seeding, prairie plantings and wildlife habitat, it is also a great addition to any flower garden or cut flower arrangement.

## Smooth Blue Aster

*Aster laevis*

Life Span: Perennial  
Height: 3-4 ft Seeds/Lb: 880,000  
Bloom Period: Late Summer-Frost  
Seeding Rate: 1 oz/600 sq ft

One of the longer lived asters, this plant boasts blue to lavender flowers with yellow centers floating over blue green foliage. It grows best in moist to dry soils with full sun to partial shade. Smooth Aster attracts butterflies and is a great cut flower.



## Spiked Gayfeather

*Liatris spicata*

Life Span: Perennial  
Height: 2-3 ft Seeds/Lb: 136,000  
Bloom Period: July-September  
Seeding Rate: 5 oz/1,000 sq ft

Also known as Dense Blazing Star, this flower is similar to Thickspeike Gayfeather, but has a more slender appearance and shorter height. Spiked Gayfeather is a perennial that is pinkish purple in color and can tolerate periodic flooding. This very popular cut flower also attracts butterflies and hummingbirds.



## Swamp Milkweed

*Asclepias incarnata*

Life Span: Perennial  
Height: 2-4 ft Seeds/Lb: 72,000  
Bloom Period: July-August  
Seeding Rate: 6 oz/1,000 sq ft

Red, pink and white flowers form clusters at the top of this plant. The long thin leaves are opposite each other on a milky sap filled stem. This perennial is native to the Great Plains and areas east. It can be planted on moist soils in full sun along the margins of lakes, ponds, streams, or lowland areas. Swamp Milkweed is attractive to butterflies. Blooms appear the second year after germination.







Courtesy of NE Statewide Arboreum

## Thickspike Gayfeather

*Liatris pycnostachya*

Life Span: Perennial

Height: 2-4 ft Seeds/Lb: 136,000

Bloom Period: Late July-September

Seeding Rate: 5 oz/1,000 sq ft

Also known as Prairie Blazing Star, it has flower heads on the terminal portion of its stem that form rose to purple, heavy spikes. Moist, but well drained sites are preferred by this perennial plant that is the tallest of the Gayfeathers. It is used as a cut flower and attracts butterflies and hummingbirds.



## White Prairieclover

*Petalostemum or Dalea candida*

Life Span: Perennial

Height: 1-3 ft Seeds/Lb: 384,000

Bloom Period: June-July

Seeding Rate: 3 oz/1,000 sq ft

White Prairie Clover is a native legume with white flowers that bloom on a cylindrical head from the base to the top. The leaves and flower head are larger than Purple Prairie Clover. Its growth is fairly vigorous from a large tap root. This perennial prefers well drained sites in full sun. It is highly palatable to wildlife and livestock.



## Western Yarrow

*Achillea millefolium L.*

var. *occidentalis DC*

Life Span: Perennial

Height: 1-2 ft Seeds/Lb: 2,800,000

Bloom Period: Summer-Fall

Seeding Rate: 1 oz/2,500 sq ft

This native white yarrow has fern-like foliage with white, compact flower heads. It spreads by rhizomes and seeds. Use at low rates in mixes as it can become aggressive at high rates. This flower is most commonly used to add diversity to native plantings or create pollinator habitat. However, it also has uses as a medicinal herb, ground cover, or for erosion control. It prefers full sun to partial shade and is very drought tolerant.

## Upright Coneflower

*Ratibida columnifera*

Life Span: Perennial

Height: 1-2 ft Seeds/Lb: 737,000

Bloom Period: May-August

Seeding Rate: 1 oz/1,000 sq ft

Upright Coneflower has yellow petals hanging from an elongated cone head. You can find this perennial throughout the Great Plains, Midwest, and eastern U.S. It competes well with other flowers and grasses, making it easy to grow. The flowers bloom attract butterflies.



Photo Credit: Kristina Jensen NE Statewide Arboreum

## Whorled Milkweed

*Asclepias verticillata*

Life Span: Perennial

Height: 18-30 in Seeds/Lb: 176,000

Bloom Period: July-September

Seeding Rate: 2 grams/1,000 sq ft

Whorled Milkweed is a shorter milkweed species (1.5-2.5 feet tall) that blooms later than other milkweed species. This feature allows for insects that like milkweed nectar to forage after the others have stopped blooming. As its name states, the plant has thin "whorled" leaves with generally white flowers atop the plant. It is a rhizomatous plant that likes well drained soils in full sun to partial shade. Works well when planted in a mixture with shorter to mid height prairie grasses. Packaged in 2 gram packets that cover approx 1000 sq ft.



## Wild Bergamot

*Monarda fistulosa*

Life Span: Perennial

Height: 2-5 ft Seeds/Lb: 1,200,000

Bloom Period: June-August

Seeding Rate: 1 oz/1,400 sq ft

Horsement and Bee Balm are other names for this fragrant smelling flower. Pink and lavender flowers form on top of branches from a somewhat square stem. Wild Bergamot is usually found on floodplains, shorelines, or woodland edges in rich, moist soils with full sun to partial shade.





# Naturalized Wildflowers



## Baby Blue Eyes

*Nemophila menziesii*

Life Span: Annual

Height: 4-10 in Seeds/Lb: 260,000

Bloom Period: Spring-Summer

Seeding Rate: 4 oz/1,000 sq ft

This is a low growing clear blue flower with white centers. Baby Blue Eyes grows well in full sun or partial shade and reseeds easily. This flower makes a good “carpet” plant in open areas, but will also do well as a “container” plant. The bright blue color of the flower petals attracts butterflies and birds.



## Blue Flax

*Linum perenne*

Life Span: Perennial

Height: 1-2 ft Seeds/Lb: 293,000

Bloom Period: Mid Spring-Early

Summer

Seeding Rate: 3 oz/1,000 sq ft

An introduced flower of European origin, this short lived perennial can bloom spring through early summer. The sky blue petals are most brilliant during the morning hours and are known to attract butterflies. Sunny slopes or well drained sites are best suited as it handles hot and dry conditions very well. Plant alone for blue waves of color or in mixed plantings.



## Candy Tuft

*Iberis umbellata*

Life Span: Annual

Height: 1-1.5 ft Seeds/Lb: 195,000

Bloom Period: Late Spring-Summer

Seeding Rate: 3 oz/1,200 sq ft

Also known as Globe Candy Tuft, this short bush like plant has white, pink and lavender clusters of flowers. Candy Tuft is adapted to light, well drained soils in full sun throughout the U.S. This flower is a perfect choice for planting alone or in mixtures and makes a good cut flower. It may act as a perennial in southern zones, otherwise it's an annual.

## Baby's Breath

*Gypsophila elegans*

Life Span: Annual

Height: 1-3 ft Seeds/Lb: 174,000

Bloom Period: Summer

Seeding Rate: 3 oz/1,200 sq ft

Baby's Breath is a white, wispy flowering plant. This shade tolerant plant prefers drier soils, but will tolerate moist well drained sites. It works well in mixtures and also makes a nice base for floral arrangements.



## California Poppy

*Eschscholzia californica*

Life Span: Perennial

Height: 12-18 in Seeds/Lb: 250,000

Bloom Period: Spring-Early Summer

Seeding Rates: 4 oz/1,000 sq ft

California Poppy has yellow-orange flowers with four petals that sit atop long stems amidst a sea of blue green foliage. This flower is native in the western U.S., but has adapted to most areas of the country. It can withstand hot, dry conditions and prefers light soils in full sun where it readily reseeds itself. This plant is a perennial in zones 4 and above, but acts like an annual in colder climates.



## Catchfly

*Silene armeria*

Life Span: Annual

Height: 1-2 ft Seeds/Lb: 4,500,000

Bloom Period: Late Spring-September

Seeding Rate: 1 oz/2,500 sq ft

Catchfly gets its name from its stems that emit a sticky sap which traps small insects. This plant has very showy clusters of pink flowers. It likes full sun to partial shade.







## Chicory

*Cichorium intybus*

Life Span: Perennial

Height: 2-4 ft Seeds/Lb: 426,000

Bloom Period: May-October

Seeding Rate: 2 oz/1,000 sq ft

This flower displays blue-violet blooms atop branched, erect stems that are anchored by a deep tap root. Chicory is easy to establish and prefers full sun. This plant recovers well after mowing and will bloom again from the shorter state. It is often included in herb gardens.



## Corn Poppy (Shirley Mix)

*Papaver rhoeas*

Life Span: Annual

Height: 1-2.5 ft Seeds/Lb: 3,100,000

Bloom Period: Late Spring-Mid Summer

Seeding Rate: 1 oz/1,400 sq ft

The Corn Poppy Shirley Mix has red, pink and white flowers with large petals that dance in the wind, making this a perfect flower for your garden or meadow planting. Corn Poppy prefers sunny well drained soils and will tolerate some shade. Mass plantings are incredible and easy to grow, while individual plants make excellent cut flowers.



## Evening Primrose

*Oenothera lamarckiana*

Life Span: Perennial

Height: 2-4 ft Seeds/Lb: 865,000

Bloom Period: Mid Summer-Fall

Seeding Rate: 1 oz/600 sq ft

Also known as Redsepal Evening Primrose, it has yellow flowers that adorn a spiked stem. The blossoms open in the late afternoon, blooming into the evening, and close before morning. This flower likes sunny, well drained soils. Evening Primrose reseeds itself well, acting as a perennial in the southern zones, but grows as a biennial in the northern zones.

## Cornflower

*Centaurea cyanus*

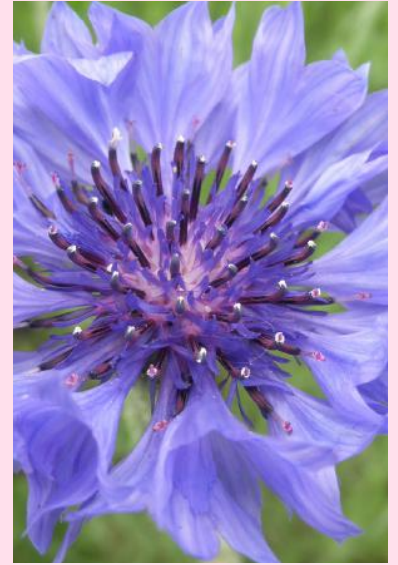
Life Span: Annual

Height: 1-2 ft Seeds/Lb: 96,000

Bloom Period: Spring-Summer

Seeding Rate: 2 oz/1,250 sq ft

Bachelor's Button is another name for these blue tufted flowers. They are very hardy, drought tolerant plants that reseed easily. Cornflower can also be seeded later in the season to produce fall blooms. They make a good cut or dried flower.



## Drummond Phlox

*Phlox drummondii*

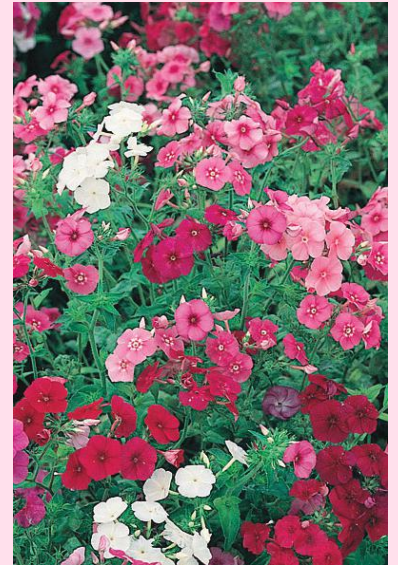
Life Span: Annual

Height: 1-2 ft Seeds/Lb: 250,000

Varieties: Summer-Frost

Seeding Rate: 4 oz/1,000 sq ft

Also known as Annual Phlox, this flower blooms are clustered close together with five petals each and are occasionally pink or white, but mostly red. This annual flower is native to Texas, but has naturalized throughout the U.S. Drummond Phlox prefers light, well drained soils in full sun.



## Gloriosa Daisy

*Rudbeckia hirta, gloriosa*

Life Span: Perennial

Height: 2-3 ft Seeds/Lb: 1,450,000

Bloom Period: Mid Summer-Early Fall

Seeding Rate: 1 oz/1,250 sq ft

This flower is a glorified relative of the Blackeyed Susan. It has a brown center with mahogany red color shooting into yellow outer petals. Easy to grow from seed, this plant is adapted to all well drained soils in the United States. It is also noted as a long lasting cut flower.





# Naturalized Wildflowers



## Painted Daisy

*Chrysanthemum carinatum*

Life Span: Annual  
Height: 1-2 ft Seeds/Lb: 189,000  
Bloom Period: Summer-Fall  
Seeding Rate: 3 oz/1,000 sq ft

Painted Daisy has three inch beautiful white, yellow, purple and red flowers with varying bands of other colors with a purple center. It's easy to grow and reseeds itself. This annual flower is a great choice for a quick, showy burst of color and also makes a good long lasting cut flower.

Courtesy of [www.opt-seamen.ru](http://www.opt-seamen.ru)



## Sensation Cosmos

*Cosmos bipinnatus*

Life Span: Annual  
Height: 2-5 ft Seeds/Lb: 89,000  
Bloom Period: Summer-Early Fall  
Seeding Rate: 5 oz/1,100 sq ft

Also known as Garden Cosmos, this flower has showy red, white and pink blooms. It prefers hot, dry sites in full sun and will tolerate most soil types. Sensation Cosmos bloom 60 – 90 days after germination and will reseed itself. The annual plant can become quite tall in fertile soils, but can be cut back before blooming starts to maintain height.



## Siberian Wallflower

*Cheiranthus allionii*

Life Span: Biennial  
Height: 12-18 in Seeds/Lb: 345,000  
Bloom Period: Late Spring-Summer  
Seeding Rate: 3 oz/1,000 sq ft

Siberian Wallflower has clusters of orange flowers above a canopy of evergreen foliage. This biennial, bushy plant should be planted in spring or late summer for blooms the second year. The appealing fragrance of the flowers makes them a good choice for flower arrangements as well as a great addition to any landscape or meadow planting. Butterflies love this late spring through summer blooming flower.

## Scarlet Flax

*Linum grandiflorum rubrum*

Life Span: Annual  
Height: 1-2 ft Seeds/Lb: 122,000  
Bloom Period: April-September  
Seeding Rate: 6 oz/1,000 sq ft

This is an early spring planted annual that produces an astonishing array of deep scarlet blossoms. It is a low maintenance plant that prefers full sun in light soils and will tolerate hot, dry conditions.



## Shasta Daisy

*Chrysanthemum maximum*

Life Span: Perennial  
Height: 1-3 ft Seeds/Lb: 436,000  
Bloom Period: June-July  
Seeding Rate: 2 oz/1,000 sq ft

Also known as Max Chrysanthemum, Shasta Daisy has white petals radiating from yellow centers. This flower will tolerate partial shade and colonize, making good ground cover. It makes an excellent cut flower



## Sulphur Cosmos

*Cosmos sulphureus*

Life Span: Annual  
Height: 2.5-3 ft Seeds/Lb: 63,000  
Bloom Period: Summer  
Seeding Rate: 3 oz/1,000 sq ft

This flower has yellow to orange flowers that attract attention to any backyard landscape. Although native to Mexico and the Southwest where it may be a perennial, this annual flower has naturalized over much of the U.S. Sulphur Cosmos can be easily grown on light soils in full sun, but will tolerate most soil types. This flower adds beauty to any cut floral arrangement. Butterflies and birds are found among them during their summer blooms.



## Other Products

Product	Botanical Name	Life Span	Seeds/lb	Seeding Rate
Cool Season Turf Grasses				
Chewings Fescue	Festuca rubra commutata	Perennial	615,000	5 lbs/1,000 sq ft
Creeping Red Fescue	Festuca rubra	Perennial	615,000	5 lbs/1,000 sq ft
Defiance Turf Type Tall Fescue	Festuca arundinacea	Perennial	230,000	10 lbs/1,000 sq ft
Hard Fescue	Festuca longifolia	Perennial	550,000	5 lbs/1,000 sq ft
Turf Type Perennial Ryegrass	Lolium perenne	Perennial	240,000	8 lbs/1,000 sq ft
World Cup Kentucky Bluegrass	Poa pratensis	Perennial	2,200,000	3 lbs/1,000 sq ft
Legumes				
Alfalfa	Medicago sativa	Perennial	227,000	20 lbs/acre
Alsike Clover	Trifolium hybridum	Perennial	680,000	6 lbs/acre
Birdsfoot Trefoil	Lotus corniculatus	Perennial	375,000	6 lbs/acre
Crimson Clover	Trifolium incarnatum	Annual	140,000	20 lbs/acre
Crownvetch	Coronilla varia	Perennial	110,000	20 lbs/acre
Hairy Vetch	Vicia villosa	Winter Annual	20,000	25 lbs/acre
Ladino Clover	Trifolium repens	Perennial	768,000	12 lbs/acre
Mammoth Red Clover	Trifolium pratense	Perennial	275,000	12 lbs/acre
Medium Red Clover	Trifolium pratense	Perennial	275,000	12 lbs/acre
White Blossom Sweet Clover	Melilotus alba	Perennial	260,000	5 lbs/acre
White Dutch Clover	Trifolium repens	Perennial	800,000	5 lbs/acre
Yellow Blossom Sweet Clover	Melilotus officinalis	Perennial	175,000	5 lbs/acre
Cool Season Pasture Grasses				
Creeping Foxtail	Alopecurus arundinaceus	Perennial	786,000	8 lbs/acre
Intermediate Wheatgrass (Oahe)	Thinopyrum intermedium	Perennial	95,000	15 lbs/acre
Kentucky Bluegrass (Common)	Poa pratensis	Perennial	2,200,000	20 lbs/acre
Meadow Bromegrass	Bromus riparius	Perennial	93,000	15 lbs/acre
Orchardgrass	Dactylis glomerata	Perennial	650,000	10 lbs/acre
Perennial Ryegrass (Common)	Lolium perenne	Perennial	240,000	20 lbs/acre
Pubescent Wheatgrass (Manska)	Thinopyrum intermedium, ssp. barbulatum	Perennial	95,000	15 lbs/acre
Red Top	Agrostis gigantea	Perennial	5,000,000	4 lbs/acre
Reed Canarygrass	Phalaris arundinacea	Perennial	480,000	8 lbs/acre
Smooth Bromegrass	Bromus inermis	Perennial	135,000	15 lbs/acre
Tall Fescue (KY 31)	Festuca arundinacea	Perennial	230,000	20 lbs/acre
Timothy (Climax)	Phleum pratense	Perennial	1,200,000	12 lbs/acre
Cover Crops				
Annual Ryegrass	Lolium multiflorum	Annual	224,000	20 lbs/acre
Annual Sunflower (Peredovik)	Helianthus annuus	Annual	8,000	10 lbs/acre
Buckwheat	Polygonum fagopyrum	Annual	18,000	50 lbs/acre
Rye Grain	Secale cereale	Annual	18,000	100 lbs/acre
Flax	Linum usitatissimum	Annual	80,000	20 lbs/acre
Oats	Avena sativa	Annual	15,000	80 lbs/acre
Purple Top Turnip	Brassica rapa	Annual	170,000	5 lbs/acre
Radish	Raphanus	Annual	25,000	8 lbs/acre
Rape	Brassica napus	Annual	175,000	5 lbs/acre
Forage Peas	Pisum sativum	Annual	3,200	70 lbs/acre
Winter Pea	Pisum sativum	Annual	4,000	70 lbs/acre
Winter Wheat	Triticum spp.	Annual	11,000	120 lbs/acre



# Wildflower Mixtures

The next few pages of this catalog are devoted to several mixtures that we, at Stock Seed Farms, have created to help you utilize prairie plants successfully in a number of different applications.

Planting wildflowers & prairie grasses together creates a more complete prairie setting. The combination adds both texture and greater competition against weeds. Our most popular option remains using the Stock's Wildflower Mixture with the Prairie 3 Plus Prairie Grass Mixture. These two mixtures seeded together are compatible in height and provide color all through summer and into the winter months.

We recommend using full rates of each mixture to speed establishment and compete against weeds.



*Photo credit: Brenda Fritsch*

The seeding method will help determine the seeding rate for native grasses and wildflowers planted together. When broadcasting the seeds, use full rates of both native grasses and wildflowers. When drilling the seeds, seeding rates can be cut back; but never use less than half rates of each. Reducing the seeding rate too much can result in thin stands and less competition against weeds. This often results in the need to replant to achieve desired results.



*Photo credit: Leigh Carlson*

The taller grasses in our Prairie 7 Prairie Grass Mixture provide greater competition to wildflowers but can be blended successfully by using the full recommended seeding rates of each. If you are looking to further improve the color in this taller prairie, increase the rate of flowers or decrease the rate of grasses.



Note: Mix formulations and components may change with species availability but functionality will remain the same.



# Wildflower Mixtures

## Stock's Wildflower Mixture

*Our most popular, most colorful mixture!*

Most of the flowers in this mixture are native perennials. Because of their hardy nature, the array of color that will bloom from year to year will vary according to the weather. Under certain conditions, some will bloom prolifically while others remain dormant until their preferred climatic conditions return. This survivability is precisely what delights native plant enthusiasts. Stock's Wildflower Mixture contains 36 species adapted to a



large area of the Great Plains and east to the Atlantic Coast.

Since the majority of the perennials are slow to germinate and may not bloom until the second or third year, we have included nine reseeding annual flowers in the mixture. These annuals will help provide a brilliant display of color the seeding year and will help compete against weeds while the perennials establish.

Blackeyed Susan*	Indian Blanket*	Showy Evening Primrose
Blanketflower	Lance Leaf Coreopsis	Showy Milkweed
Blue Flax	Lemon Mint*	Showy Partridge Pea*
California Poppy*	Mexican Red Hat	Sky Blue Aster
Canada Milkvech	Missouri Primrose	Smooth Blue Aster
Corn Poppy*	New England Aster	Smooth Penstemon
Cornflower*	Ohio Spiderwort	Spiked Gayfeather
Dwarf Red Coreopsis*	Perennial Lupine	Thickspike Gayfeather
False Sunflower	Plains Coreopsis*	Upright Coneflower
Gloriosa Daisy	Purple Coneflower	Western Yarrow
Gold Yarrow	Purple Prairieclover	
Golden Alexander	Scarlet Flax*	*Annuals
Grayhead Coneflower	Shasta Daisy	

Height: 2-4 ft

Seeding Rates: 1 oz/150 sq ft or 1 lb/3,500 sq ft (Broadcast), 10 lbs/ac (Drilled)

## Husker Li'l Wildflower Mixture

*A blend of shorter height wildflowers*

This is a mixture of 19 perennial and 10 annual wildflowers to be used where shorter heights are required. It is perfect for gardens, parks, or along trails. The flowers range in height from just under one foot to just over two feet.



Plant this mix in spring for best results or late fall in a dormant seeding. The annuals need a full growing season to produce seed for the next year.

The annuals will provide most of the color the first year with the perennials making their showing in following years.

Baby Blue Eyes*	Dwarf Red Coreopsis*	Shasta Daisy
Blackeyed Susan*	Golden Alexander	Shell Leaf Beardtongue
Blanketflower	Indian Blanket	Showy Milkweed
Blue Flax	Lance Leaf Coreopsis	Siberian Wallflower*
Butterfly Milkweed	Mexican Red Hat	Spiked Gayfeather
California Poppy*	Painted Daisy*	Upright Coneflower
Canada Milkvech	Perennial Lupine	White Prairieclover
Corn Poppy*	Purple Coneflower	
Cornflower*	Purple Prairieclover	* Annuals
Drummond Phlox*	Red Yarrow	
Dwarf Blanketflower	Scarlet Flax*	

Height: 1-2 ft

Seeding Rates: 1 oz/150 sq ft or 1 lb/3,500 sq ft (Broadcast), 10 lbs/ac (Drilled)

All Native

## Stock's Pollinator Mixture

*A variety of season long blooms for pollinators!*

Stock Seed Farms has improved this irresistible mixture, now with 44 all native wildflowers! Providing diverse bloom colors and shapes from early spring all the way through late fall is key to quality pollinator habitat. Another component is to plant this mixture close to flowering trees and/or native grasses to provide additional blooms, nesting sites, and shelter. Our Prairie 7 or Prairie 3 Plus prairie grass mixtures work well for this purpose. Seed this mixture in mid spring. The annual wildflowers, and many



perennials will bloom the first year with increased perennial blooms the second and third year.

For even greater diversity and forage quality for pollinators, try adding some White or Yellow Sweet Clover, Red Clover, or Alfalfa. This mix contains approximately 415,000 seeds per lb.

Blackeyed Susan*	Indian Blanket*	Shell Leaf Beardtongue
Blanketflower	Leadplant	Showy Milkweed
Blue Flax	Lemon Mint*	Showy Partridge Pea*
Blue Vervain	Mexican Red Hat	Showy Tick Trefoil
Blue Wild Indigo	New England Aster	Sky Blue Aster
Butterfly Milkweed	New Jersey Tea	Smooth Blue Aster
Canada Milkvech	Pale Purple Coneflower	Smooth Penstemon
Clasping Coneflower*	Perennial Lupine	Stiff Goldenrod
Common Milkweed	Plains Coreopsis*	Sullivants Milkweed
Culvers Root	Prairie Cinquefoil	Thickspike Gayfeather
False Sunflower	Purple Coneflower	Upright Coneflower
Golden Alexander	Purple Prairieclover	White Prairieclover
Grayhead Coneflower	Rattlesnake Master	White Wild Indigo
Hoary Vervain	Rocky Mt. Bee Plant	Wild Bergamot
Illinois Bundleflower	Roundhead Lespedeza	*Annuals

Height: 2-4 ft

Seeding Rate: 1 oz/150 sq ft or 1 lb/3,500 sq ft (Broadcast), 10 lbs/ac (Drilled)

All Native

## Bit O' Prairie Native Wildflower Mixture

*25 native wildflowers, easy to grow!*

This native wildflower mixture has been expanded to include a wide array of native plants for your enjoyment. Bit O' Prairie consists of 21 perennial and 4 annual species of the most common and easy to grow wildflowers. The annuals will provide first year flowers, but most of the perennials will also bloom the first year. Colors in this mixture favor hues of purple, blue, red, yellow, and white. It should be seeded in early spring or late fall.



Blackeyed Susan*	Leadplant	Showy Milkweed
Blanketflower	Lemon Mint	Showy Partridge Pea*
Blue Flax	Mexican Red Hat	Stiff Goldenrod
Butterfly Milkweed	New England Aster	Thickspike Gayfeather
Canada Milkvech	Pale Purple Coneflower	Upright Coneflower
Grayhead Coneflower	Perennial Lupine	White Prairieclover
Hoary Vervain	Plains Coreopsis*	Wild Bergamot
Illinois Bundleflower	Purple Coneflower	
Lance-Leaf Coreopsis	Purple Prairieclover	* Annuals

Height: 2-4 ft

Seeding Rates: 1 oz/150 sq ft or 1 lb/3,500 sq ft (Broadcast), 10 lbs/ac (Drilled)



# Wildflower Mixtures

## Backyard Retreat Mixture

*Attract birds, butterflies, and insects!*

This mixture creates a feast for nature's existence in your own backyard. It provides a full season of radiant colors and natural beauty. The blend of 34 different wildflowers creates a place of serenity and an atmosphere to sooth the soul. Observing the many birds, butterflies, and insects attracted to the blooms will make you feel one with nature in your own "Backyard Retreat."



We combine our Native Bit O' Prairie Wildflower Mixture with the following additional flowers for a diverse mixture of 30 perennials and 4 annuals. Extra Butterfly Milkweed (the very popular host plant for the rearing of Monarch butterflies) makes it even more appealing.

Bit O' Prairie Wildflower Mix	Gloriosa Daisy	Rattlesnake Master
Common Milkweed	Hoary Vervain	Sky Blue Aster
Drummond Phlox*	Joe Pye Weed	Smooth Aster
False Sunflower	Maximilian Sunflower	Smooth Penstemon

\* Annuals

Height: 2-5 ft

Seeding Rates: 1 oz/150 sq ft or 1 lb/3,500 sq ft (Broadcast), 10 lbs/ac (Drilled)

## Pioneer Wildflower Mixture

*A wildflower mix for the arid Western region*

This mix contains wildflowers that will adapt to poor soils, low in fertility and organic matter, and in areas of low to moderate rainfall. The annuals along with a few of the perennials will give a vibrant first year show, with more perennials blooming the following years.



Sow in spring or late fall for best results. Keep soil moist during germination period (1-2 weeks) until plants have established a root system. Developing plants will require supplemental water if extra-dry conditions persist within a month after seedling emergence.

Blackeyed Susan*	Gloriosa Daisy	Purple Prairieclover
Blanketflower	Hoary Vervain	Rocky Mountain Bee Plant*
Blue Flax	Mexican Red Hat	Shell Leaf Penstemon
Butterfly Milkweed	Missouri Primrose	Showy Partridgepea*
California Poppy*	Pale Purple Coneflower	Sulphur Cosmos*
Clarkia*	Perennial Lupine	Upright Coneflower
Clasping Coneflower*	Plains Coreopsis*	White Prairieclover
Cornflower*	Prairie Goldenrod	Western Yarrow

\* Annuals

Height: 2-3 ft

Seeding Rates: 1 oz/150 sq ft or 1 lb/3,500 sq ft (Broadcast), 10 lbs/ac (Drilled)

## Shadow Wildflower Mixture

*Flowers adapted to partial shade*

Just as you need sun to have a shadow, the plants in this mixture require at least four hours of direct sunlight in combination with filtered sun to flourish. Less sunlight will shorten their height and bloom period. Good fertility and occasional watering in dry periods will also help these flowers tolerate shady conditions.



Baby's Breath*	Lemon Mint*	Showy Goldenrod
Blackeyed Susan*	Mexican Red Hat	Showy Tick Trefoil
Blue Flax	New England Aster	Smooth Penstemon
Catchfly*	Ohio Spiderwort	Sweet Joe Pye Weed
Cornflower*	Purple Coneflower	Western Yarrow
Dames Rocket*	Scarlet Flax*	Wild Bergamot
Lance Leaf Coreopsis	Shasta Daisy	

\* Annuals

Height: 2-4 ft

Seeding Rates: 1 oz/150 sq ft or 1 lb/3,500 sq ft (Broadcast), 10 lbs/ac (Drilled)

## Annual Wildflower Mixture

*Stunning first year color!*

Landscapers and gardeners want first year growth and color. This mixture gives just that, while perennials and biennials establish. It can be used alone or in combination with slower starting wildflowers. In addition to the beautiful array of first year blooms, this mix is also used for a cover crop with perennial flowers, erosion control, temporary wildlife food plots, and as an attractant for butterflies. The flowers in this mix are adapted to a wide range of soil types. To achieve the best results, plant these seeds in late fall after frost or in early spring. Annuals need a full growing season to produce the seed necessary to reseed themselves.



Blooms can be expected 8-10 weeks after germination in spring, and should continue into fall. Please note that some natural reseeding will occur, but an additional 2-4 lbs/ac each year is needed to ensure results similar to the first year. Do not exceed 2 lbs/ac when using this mix as a cover crop for perennial wildflowers.

Baby Blue Eyes	Corn Poppy	Partridgepea
Baby's Breath	Cornflower	Plains Coreopsis
California Poppy	Drummond Phlox	Rocky Mountain Bee Plant
Candy Tuft	Dwarf Red Coreopsis	Scarlet Flax
Catchfly	Evening Primrose	Sensation Cosmos
Clarkia	Indian Blanket	Sulphur Cosmos
Clasping Coneflower	Painted Daisy	

Height: 2-4 ft

Seeding Rates: 1 oz/150 sq ft or 1 lb/3,500 sq ft (Broadcast), 10 lbs/ac (Drilled)

## Habitat Mixture

*Great for erosion control as well!*

This wildflower and legume mixture serves many purposes along with its natural beauty. It will attract butterflies and other insects for wildlife food while providing nesting cover for birds. Its fast growth will stabilize soil on roadside ditches, dams, waterways, and side hills. The Habitat Mixture has been developed from many years of experience working with wildlife habitat, conservation projects, and roadside developments. A mixture that can solve many problems, it consists of 36 native and introduced wildflowers (50% by weight) along with 4 introduced legumes that exhibit success on

critical sites. We recommend seeding a full rate of Habitat Mixture with either the Prairie 3 or Prairie 7 Grass Mixture at a full rate as well. Always use a minimum of ½ rate of each for grasses and flowers seeded together.



Birdsfoot Trefoil  
Crimson Clover\*\*  
Hairy Vetch\*\*  
Red Clover  
Stock's Wildflower Mixture (page 29)

\*\* Winter Annuals

Height: 1-4 ft

Seeding Rates: 1 lb/3,500 sq ft (Broadcast), 10 lbs/ac (Drilled)

## No Deer Here Wildflower Mix

*17 Wildflowers Not on the Menu!*

Are you tired of working hard to plant, water, weed, and care for your wildflowers only to have them nibbled off right before the beautiful payoff? No Deer Here Wildflower Mix contains a specific blend of wildflowers that deer tend to pass up while munching along. The mix contains 6 perennial wildflowers and 11 annual wildflowers. Many of the annuals will reseed themselves for enjoyment in following seasons, but re-seeding occasionally will help keep all the colors on display.



Arroyo Lupine  
Blanketflower  
Blue Pimpernell  
Blue Sage  
California Poppy  
Dwarf Lupine  
Foxglove  
Gloriosa Daisy  
Lance Leaf Coreopsis

Perennial Lupine  
Plains Coreopsis  
Scarlet Sage  
Shirley Poppy  
Sweet Alyssum-Tall White  
White Yarrow  
Yellow Lupine  
Zinnia-CA Giants Mix

Height: 8-48 inches

Seeding Rates: 2 oz/150 sq ft or 1 lb/2,500 sq ft (Broadcast), 15 lbs/ac (Drilled)

## Roadside Mixture

*Good for driveways and building sites too!*

This mixture will naturalize many areas where a low growing combination of grasses and wildflowers is desired. Warm- and cool-season grasses are combined with annual and perennial wildflowers to form beautiful borders along driveways, roads, recreation areas, and building sites.

### 10% MORE WILDFLOWERS



Blue Grama  
Buffalograss  
Hard Fescue

Husker Li'l Wildflower Mixture (page 29)  
Sheep Fescue  
Sideoats Grama

Height: 1-2 ft

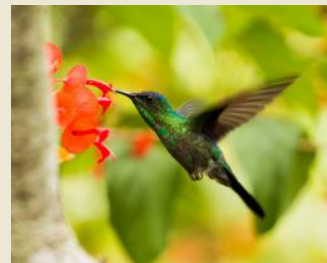
Seeding Rates: 1-2 lbs/1,000 sq ft (Broadcast) 30 lbs/ac (Drilled)

## Happy Hummingbird Wildflower Mix

*Attract Hummingbirds & enjoy stunning wildflowers all season long*

There is a well-known symbiotic relationship between hummingbirds and wildflowers. The wildflowers provide nectar to fuel the bird. The birds, in turn, carry pollen from plant to plant, fertilizing as they go.

Our Happy Hummingbird Wildflower Mix is made up of 22 species designed to attract and provide nectar for Hummingbirds for the entire growing season. The wildflowers selected for this mix are colorful and showy as to attract the Hummingbirds, as well as, other welcome pollinators. This mixture is made up of 11 annuals and 11 perennials to allow a burst of color the first year and a long-lasting spectacle of beauty for years to come.



Seed this mixture in mid spring. The annual wildflowers, and many perennials will bloom the first year with increased blooms the second and third year as perennials establish themselves.

Annual Lupine  
Butterfly Milkweed  
Calendula  
Candytuft  
Clarkia  
Cornflower  
Red Drummonds Phlox  
Evening Primrose

Flowering Tobacco Plant  
Forget-Me-Not  
Four O'Clock  
Maltese Cross  
Missouri Primrose  
Nasturtium  
Perennial Lupine  
Rocket Larkspur

Rocky Mountain Penstemon  
Russell Lupine Mix  
Scarlet Sage  
Spiked Gayfeather  
Sweet William  
Zinnia

Height: 18-36 inches

Seeding Rates: 1 oz/150 sq ft or 1 lb/4,500 sq ft (Broadcast), 10 lbs/ac (Drilled)



# Native Grass Mixtures

All Native

## Prairie 3 Plus Prairie Grass Mixture

*Perfect with any wildflower mix or by itself!*

This mixture is an excellent choice of short and mid-height, warm-season prairie grasses that can be used for landscaping, wildlife habitat, erosion control, and especially seeding with wildflowers. The "Plus" stands for the small percentage of Buffalograss that is added to the mix. Buffalograss is a non-aggressive, sod forming grass that will improve the rate and density of first year coverage as well as fill in bare spots in following years. The plants range in height from 1-3 feet with Buffalograss being the shortest, followed by Blue Grama, Sideoats Grama, and Little Bluestem. These four low maintenance grasses are adapted to a very wide range of soils and climatic conditions. Drought tolerance is a common characteristic of all these grasses. This mix will give green color in the hot summer months before changing to beautiful reds and golden browns in fall through winter.



Blue Grama  
Buffalograss

Little Bluestem  
Sideoats Grama

Height: 1-3 ft

Seeding Rates: 1 PLS lb./3,000 sq ft (Broadcast), 8 PLS lbs/ac (Drilled)

All Native

## Prairie Partners Mixture

*Perfect for short grass prairie settings!*

Buffalograss and Blue Grama are blended together in this mix. These perennial, native warm-season short grasses grow together on native prairies and can also grow together in your backyard! Both grasses have similar characteristics such as low, slow growth habits, minimal water and fertilizer requirements, and extreme drought tolerance.



Blue Grama  
Buffalograss

Blue Grama will however, germinate faster and green up earlier in spring. Together, these two grasses make an attractive sod with increased density and offer an economical way to cover large, outlying areas. They work especially well on light or sandy soils. Blue Grama will appear slightly taller than Buffalograss when the mixture is unmowed.

Height: 6-12 in

Seeding Rates: 1-2 lbs/1,000 sq ft (Broadcast for Turf)  
20-30 lbs/Ac (Drilled for Forage or Cover)

All Native

## Prairie 7 Prairie Grass Mixture

*Grasses from the native tall grass prairies*

If recreating the elegance of the native tall grass prairies is your goal, this is the mix to do it! Enjoy nature's beauty with this blend of three tall and four mid-height native grasses. This mix provides excellent habitat for all types of wildlife. It acts as a natural dust collector, sound barrier, and snow fence when planted next to roadways or living spaces. Its radiant red, gold, and purple colors add landscaping beauty throughout the fall and winter months.



Big Bluestem  
Indiangrass  
Little Bluestem  
Sideoats Grama

Switchgrass  
Tall Dropseed  
Virginia Wildrye

Height: Up to 6 ft

Seeding Rates: 1 PLS lb/2,000 sq ft (Broadcast), 10 PLS lbs/ac (Drilled)

All Native

## Sandy Site Mixture

*Native Grasses to Stabilize Sandy Sites*

We have put together this special blend to fill the need for soil stabilization and protection on sites with sandy soils that are susceptible to wind and water erosion. Included are both warm- and cool-season native grasses that perform in sandy soils. These grasses collect and hold blowing sediment and snow which is necessary for



them to survive in dryer soil profiles with little organic matter. We have included two options. One is a mid height blend (up to 3 ft) and the other includes three taller grasses (up to 5 ft). Plant these mixes in spring through early summer. Starter fertilizer and irrigation (if available) will help speed germination and establishment.

### Mid Height Option

Blue Grama  
Canada Wildrye  
Little Bluestem  
Sand Dropseed  
Sand Lovegrass  
Sheep Fescue  
Sideoats Grama

### Tall Option

Blue Grama  
Canada Wildrye  
Indian Ricegrass  
Little Bluestem  
Prairie Sandreed  
Sand Bluestem  
Sand Dropseed  
Sand Lovegrass  
Sheep Fescue  
Sideoats Grama

Height: Mid Option 1-3 ft, Tall Option up to 5 ft

Seeding Rate: 15 PLS lbs/ac (Broadcast), 12 PLS lbs/ac (Drilled)

## Forage Base Deer and Turkey Mixture

*Great for wildlife food and cover!*

A good forage base is one of the components necessary to attract and hold deer. Others include a grain base, tree or shrub area, and water supply. This mixture of high protein forages will provide grazing into summer and fall months to support weight gain and massive antler growth. These plants also provide forage and brood cover for wild turkeys. It will also protect against soil erosion. Plant this mix in spring/late summer on well drained soils near one or more of the above components for best results.



Alfalfa  
Alsike Clover  
Annual Ryegrass  
Crimson Clover  
Forage Chicory

Ladino Clover  
Orchardgrass  
Red Clover  
Timothy

Height: 2-3 ft

Seeding Rates: 1 lb/1,500 sq ft or 25-30 lbs/ac (Broadcast), 20 lbs/Acre (Drilled)

## Upland Game Bird Mixture

*Provides food and cover*

This mixture will provide food and cover for upland game birds with a variety of 7 annual grains and forbs. Food plots are most successful when placed near heavy cover and a water source. We suggest seeding this mix annually in spring next to a perennial native grass stand. Our Prairie 7 or Prairie 3 Plus Prairie Grass Mixtures are suited to

this purpose. The habitat and food value of this mixture will be available to upland birds in summer and through the winter months. Pheasants and Quail will find it irresistible along other birds and wildlife.



Tom Curtis/FreeDigitalPhotos.net



Dr Joseph Valks/FreeDigitalPhotos.net

Annual Sunflower  
Buckwheat  
Foxtail Millet  
Oats

Showy Partridgepea  
WGF Milo  
White Proso Millet

Height: Up to 4-5 ft

Seeding Rate: 30 lbs/ac (Broadcast), 20 lbs/ac (Drilled)

# Turf Grass Mixtures

## Sports Turf Mixture

*Perfect for Athletic Fields, Parks, or High Traffic Areas*

This mixture combines our best turf type Tall Fescue, turf type Perennial Ryegrass, and Kentucky Bluegrass. It will provide a dense, dark green turf suitable for activities and sports. These fast growing varieties will establish quickly and also repair themselves fast to maintain a lush playing surface. The Sports Turf mixture will require irrigation and fertilization to remain looking its best. The mixture can be planted in early through late



spring and again in late summer through mid fall. Supplemental irrigation can extend seeding times and is recommended for germination and early establishment. A starter fertilizer should also be used.

Defiance Turf Type Tall Fescue Blend  
World Cup Kentucky Bluegrass Blend  
Zoom Turf Type Perennial Ryegrass

Height: Maintain desired height by mowing

Seeding Rate: 7 lbs/1,000 sq ft (Broadcast)

## Shady Mixture

*Cover bare, shady areas with these grasses*

This is a cool-season blend of four grasses that cover a wide range of conditions. They demonstrate exceptional tolerance to shade, drought, and disease. Shady mixture works well in deep shade to partial sun. Best results will be obtained by mowing the grass at a raised cutting height and mowing it less frequently if at all.



Applying water and fertilizer prior to hot, dry conditions and limiting traffic will also promote a long lived stand.

Chewings Fescue  
Creeping Red Fescue

Hard Fescue  
Shade Tolerant Kentucky Bluegrass

Height: 6-8 in

Seeding Rates: 5 lbs/1,000 sq ft (Broadcast)



# Pasture and Conservation Mixtures

## Warm-Season Pasture Mixture

*Maintains production in summer months*

Turn to this warm-season pasture mix for summer forage when cool-season pastures lose productivity. This mixture combines Bonanza Big Bluestem, Scout Indiangrass, and Trailway Sideoats Grama to offer the best possible hay and forage production in the heat of summer. Increase animal rate of gain with the two newest releases in warm season pasture grasses. Bonanza and Scout have exceptional In Vitro Dry Matter Digestibility (IVDMD); with Trailway added as another palatable, high quality grass that aids in stand establishment. Forage quality is best when grazed or hayed as heads start to appear. Leaving these grasses grow to maturity will decrease palatability and



Bonanza Big Bluestem  
Scout Indiangrass  
Trailway Sideoats Grama

forage quality. With adequate moisture or irrigation, established stands can also be grazed or cut early; then rested to provide additional forage in late summer. Do not overgraze, as this slows or even stops root growth. This will extend recovery time and promote weed invasions. The addition of 50 lbs/ac of nitrogen fertilizer annually in spring will help keep plants productive. Maximum production will be achieved when used in a well managed, rotational grazing program.

Height: Up to 6 ft (if not grazed or hayed)

Seeding Rates: 1 PLS lb/2,000 sq ft (Broadcast), 10-12 PLS lbs/ac (Drilled)

## Cool-Season Pasture Mixture

*Economical pasture with high digestibility*

This pasture mix works well for either cattle or horses. It is an economical mixture that includes 7 grass varieties with high yields and improved forage quality. These cool season grasses will produce best in spring and fall, with cool temperatures and adequate



moisture. Do not overgraze as this will slow or even stop root growth. This will slow the recovery time of the grasses, and also promote weed invasions. Maximum production will be achieved with a well managed, rotational grazing program. Plant this mixture in early spring or late summer.

Festulolium  
Intermediate Wheatgrass  
Orchardgrass  
Pubescent Wheatgrass

Meadow Brome grass  
Smooth Brome grass  
Timothy

Height: Up to 3 ft (if not grazed or hayed)

Seeding Rates: 18-20 lbs/ac (Broadcast), 15 lbs/ac (Drilled)

## Conservation Mixture

*Fast establishment for erodible sites*

Use this mix for FAST establishment in waterways or ditches; on banks, hillsides or other critical sites to control soil erosion. The mixture of 5 cool season grasses plus oats is perfect for quick germination and coverage with both bunch and sod forming grasses. In areas where high water flow is possible, erosion blanket is recommended as an extra measure to keep the seed and soil in place during establishment. Plant in early spring or late summer.



Annual Ryegrass  
Fawn Tall Fescue (Low Endophyte)  
Intermediate Wheatgrass  
Oats  
Orchardgrass  
Smooth Brome grass

Height: 1-3 ft

Seeding Rate: 50 lbs/acre

## High Elevation Pasture Mixture

*Pasture up to 9,000 feet*

This pasture mix includes 6 cool-season grasses that will provide excellent grazing in altitudes up to 9,000 feet. Annual rainfall of 12 inches per year or more is required for maximum forage production. Fertilizer is also needed annually to keep forage production high. The planting of this mixture should be timed to take advantage of cooler temperatures and rainfall.



Intermediate Wheatgrass  
Meadow Brome grass  
Orchardgrass

Perennial Ryegrass  
Slender Wheatgrass  
Timothy

Height: Up to 3 ft (if not grazed or hayed)

Seeding Rate: 24 lbs/ac (Broadcast), 20 lbs/ac (Drilled)

All Native

## Floodplain Mixture

*Tolerates seasonal flooding*

This blend of deep rooted grasses is used to reestablish damaged floodplains. The mixture can also withstand seasonal flooding with grasses that have different levels of tolerance to standing water. The grasses in the Floodplain Mixture have varying degrees of tolerance to inundation (standing water) as shown below. Temperature, soil type, water depth, and age of stand all influence how long grasses can survive in standing water. Plants are typically more tolerant in spring than in summer.



We recommend this mix be planted along fluctuating shorelines, on dams, or for lowland pasture. Seeding should be done in spring or fall, after frost; use increased rates when wet conditions dictate broadcast seeding.

Big Bluestem \*7-14 Days  
Canada Wildrye \*15-30 Days  
Eastern Gamagrass \*45 Days  
Fox Sedge \*60 Days

Indiangrass \*3-5 Days  
Switchgrass \*15-30 Days  
Virginia Wildrye \*60 Days  
Western Wheatgrass \*60 Days

\* Tolerance to standing water

Height: 3-6 ft

Seeding Rates: 18-20 lbs/ac (Broadcast), 12-15 lbs/ac (Drilled)

All Native

## Water's Edge Mixture

*Grasses and Forbs for Shoreline Stabilization*

This combination of grasses and forbs is designed to hold soil along the fluctuating shorelines of lakes, ponds, streams, or lagoons. It consists of 28 species that will provide soil stabilization and habitat not only in the water, but on the banks leading down to it as well. These plants will filter runoff flowing into the body of water while providing food and cover for wildlife and waterfowl.



Blue Flag Iris  
Bluejoint Reedgrass  
Blue Vervain  
Bristley Sedge  
Canada Anemone  
Cardinal Flower  
Common Arrowhead  
Dark Green Bulrush  
Fox Sedge

Frank's Sedge  
Giant Bur Reed  
Great Blue Lobelia  
Hardstem Bulrush  
Hop Sedge  
Joe Pye Weed  
Monkey Flower  
New England Aster  
Prairie Cordgrass

Rice Cut Grass  
Riverbank Wildrye  
Softstem Bulrush  
Soft Rush  
Swamp Milkweed  
Sweet Flag  
Tussock Sedge  
Virginia Wildrye  
Water Plantain  
Woolgrass

Height: 2-5 ft

Seeding Rates: 1 lb/1,000sq ft (Broadcast), 15 lbs/ac (Drilled)

## Stock Seed Farms has a wide selection of wetland species

Custom mixtures can be made to fit any special need or project. We have seeds for floodplain establishment, shoreline stabilization, waterfowl habitat, rain gardens, and bio retention basins.

Please call for pricing on these items or custom mixes.

Along with the species in the Floodplain and Water's Edge mixtures, we also carry seed for a variety of wetland plants:

American Sloughgrass  
Bluejoint Grass  
Boneset  
Cardinal Flower  
Cup Plant  
Great Blue Lobelia  
Mountain Mint  
Obedient Plant  
Rice Cutgrass

River Oats  
Rosin Weed  
Sneezeweed  
Various Bulrushes  
Various Rushes  
Various Sedges  
Water Plantain  
Wild Golden Glow  
Woolgrass

