

Planting Guide

Plant Materials Center Releases

Manhattan, Kansas

January 2006



**Kaneb Purple Prairie
Clover**



**Midas False
Sunflower**



**Nekan Pitcher
Sage**



**Sunglow Gray Head
Prairie Coneflower**



**Eureka Thickspike
Gayfeather**

Seed Growers' Guide for Five Native Forbs/Legumes Released for Conservation Use

	<i>Dalea purpurea</i> Kaneb Purple Prairie Clover	<i>Heliopsis helianthoides</i> Midas False Sunflower	<i>Salvia azurea</i> Nekan Pitcher Sage	<i>Ratibida pinnata</i> Sunglow Gray Head Prairie Coneflower	<i>Liatris pycnostachya</i> Eureka Thickspike Gayfeather
Origin	Kansas	Kansas	Kansas	unknown	Kansas
Seeds Per Pound	271,000 - 300,000	126,000	131,146 - 132,857	410,000 - 445,000	126,144 - 131,266
Seeding Date	Spring or Fall	Spring (March - April)	Spring	Spring or Fall	Fall
Seed Treatment	Spring: cold, damp stratification, 2 weeks at 4° C, scarified, inoculation inoculum F Fall: unstratified, unscarified, inoculation inoculum F	cold, damp stratification 30 days at 4° C improves germination, but is not necessary	none	cold, damp stratification 9 weeks at 4° C	spring plantings require cold stratification 15 weeks at 4° C
Germination	78 - 88.9%	63 - 82%	89.3 - 94.6%	60%	68.5 - 81.5%
Recommended Planting Method	drill 1/4" deep 20 - 40 PLS/ft broadcast and cover 1/4" deep	drill 45 PLS/ft	rows drilled into firm, clean seed bed 20 - 40 PLS/ft	rows drilled into firm, clean seed bed 20 - 40 PLS/ft	rows drilled 1/4" into firm, clean seed bed 20 - 40 PLS/ft
Row Spacing	24 - 36 inches	32 - 40 inches	24 - 36 inches	12 - 30 inches	12 - 24 inches
Seeding Rate - Pure Live Seed (PLS lbs./ac.)	2* (8 oz./acre when mixed)	4.7 drilled* 5.2 broadcast	3.3*	1.2*	5.1* (4 oz./acre when mixed)
Soil Site	clay loam - sandy loam well drained	moist - dry	silt loam - silt clay loams dry, well drained	dry, well drained	clay loam - sandy loam moist
Seed Yield Potential (lbs./ac.)	200 - 400	60 - 225	170 - 300	150 - 200	274 - 435
Potential Problems	insects and small mammals endanger seedling stands	plant size inhibits cultivation at about 8 weeks	high competition from warm season, annual grasses	bird predation on seeds	moderate to severe lodging when used in monocultures
Remarks	yield may be increased substantially via fertilization and irrigation	most successful in the 11.8+ cm, (30+ in), precipitation zone moderate levels of N,P,K desirable	yields recorded using no fertilization and minimal irrigation	does well with competition from other plants	yields recorded using no fertilization and minimal irrigation, ornamental, grows in poor soils, requires no special care

For more information: Manhattan Plant Materials Center, 3800 S. 20th St., Manhattan, KS 66502-9535; phone (785) 539-8761

Area of Adaptation: Plant adaptation to site and climatic conditions of the area are critical to success of the planting. These five native forb and legume releases originated from single or multiple natural site collections in Kansas. Anticipated areas of adaptation include those sites suitable for the species in the central United States.

*figures obtained using the average weight of seeds per pound, average seeding rate, and maximum row spacing