

**Create a seed mix that meets the standard:**

Using the Seed Calc workbook, design a seed mix that contains:

Big Bluestem

Little Bluestem

Indiangrass

Switchgrass

Side-oats grama

(Species selected by using an ecological site description)

How do we check this seed mix to see if it meets the 342 practice standard:

### Mesic Prairie Northwest

35-441

| Common Name            | Scientific Name   | Rate (kg/ha) | Rate (lb/ac) | % of Mix (% by wt) | Seeds/ sq ft |
|------------------------|---|--------------|--------------|--------------------|--------------|
| big bluestem           | <i>Andropogon gerardii</i>  | 1.12         | 1.00         | 9.08%              | 3.67         |
| side-oats grama        | <i>Bouteloua curtipendula</i>   | 1.35         | 1.20         | 10.89%             | 2.64         |
| nodding wild rye       | <i>Elymus canadensis</i>  | 1.12         | 1.00         | 9.09%              | 1.91         |
| slender wheatgrass     | <i>Elymus trachycaulus</i>  | 1.12         | 1.00         | 9.11%              | 2.54         |
| porcupine grass        | <i>Hesperostipa spartea</i>   | 0.47         | 0.42         | 3.82%              | 0.11         |
| switchgrass            | <i>Panicum virgatum</i>   | 0.20         | 0.18         | 1.59%              | 0.90         |
| little bluestem        | <i>Schizachyrium scoparium</i>  | 1.68         | 1.50         | 13.66%             | 8.28         |
| Indian grass           | <i>Sorghastrum nutans</i>   | 1.35         | 1.20         | 10.91%             | 5.29         |
| Total Grasses          |   | 8.41         | 7.50         | 68.15%             | 25.33        |
| Prairie Wild Onion     | <i>Allium stellatum</i>   | 0.03         | 0.03         | 0.27%              | 0.12         |
| Canada milk vetch      | <i>Astragalus canadensis</i>  | 0.07         | 0.06         | 0.54%              | 0.37         |
| white prairie clover   | <i>Dalea candida</i>  | 0.07         | 0.06         | 0.55%              | 0.42         |
| purple prairie clover  | <i>Dalea purpurea</i>   | 0.10         | 0.09         | 0.83%              | 0.50         |
| Canada tick trefoil    | <i>Desmodium canadense</i>  | 0.09         | 0.08         | 0.77%              | 0.17         |
| ox-eye                 | <i>Heliopsis helianthoides</i>  | 0.07         | 0.06         | 0.55%              | 0.14         |
| rough blazing star     | <i>Liatris aspera</i>   | 0.03         | 0.03         | 0.28%              | 0.18         |
| great blazing star     | <i>Liatris pycnostachya</i>   | 0.07         | 0.06         | 0.54%              | 0.24         |
| wild bergamot          | <i>Monarda fistulosa</i>  | 0.03         | 0.03         | 0.27%              | 0.77         |
| stiff goldenrod        | <i>Oligoneuron rigidum</i>  | 0.03         | 0.03         | 0.27%              | 0.45         |
| Virginia mountain mint | <i>pycnanthemum virginianum</i>   | 0.04         | 0.04         | 0.34%              | 3.00         |
| prairie coneflower     | <i>Ratibida columnifera</i>   | 0.07         | 0.06         | 0.55%              | 0.93         |
| black-eyed susan       | <i>Rudbeckia hirta</i>  | 0.08         | 0.07         | 0.59%              | 2.20         |
| heath aster            | <i>Symphyotrichum ericoides</i>   | 0.01         | 0.01         | 0.14%              | 1.10         |
| smooth aster           | <i>Symphyotrichum laeve</i>   | 0.03         | 0.03         | 0.27%              | 0.61         |
| blue vervain           | <i>Verbena hastata</i>  | 0.10         | 0.09         | 0.77%              | 2.91         |
| golden alexanders      | <i>Zizia aurea</i>  | 0.19         | 0.17         | 1.56%              | 0.70         |
| Total Forbs            |   | 1.12         | 1.00         | 9.09%              | 14.81        |
| Oats                   | <i>Avena sativa</i>   | 2.80         | 2.50         | 22.76%             | 1.12         |
| Total Cover Crop       |   | 2.80         | 2.50         | 22.76%             | 1.12         |
| Totals:                |   | 12.33        | 11.00        | 100.00%            | 41.25        |
| Purpose:               | Regional mesic prairie reconstruction for wetland mitigation, ecological restoration, or conservation program plantings.  |              |              |                    |              |
| Planting Area:         | Tallgrass Aspen Parklands Province, Red River Prairie Section, Hardwood Hills subsection of the MN & NE IA Morainal Section, may extend into the far western portions of the Laurentian Mixed Forest Province. Mn/DOT Districts 2(west) & 4(north). |              |              |                    |              |

**Certification of the practice:**

## Seeding Plan

Name \_\_\_\_\_ Class Example \_\_\_\_\_ Date 4/6/2020

Prepared by Kelly Tract No./ Field No. 1234

Type of Seeding:

Field Area (acres): 5.00

### Seeding Mix Summary

342 CRITICAL AREA PLANTING - NATIVE GRASS

| <b>Grasses/</b>                 |                    | <b>PLS</b>              |                 |                |
|---------------------------------|--------------------|-------------------------|-----------------|----------------|
| <b>Sedges</b>                   | <b>Common Name</b> | <b>Scientific Name</b>  | <b>Lbs/Acre</b> | <b>PLS Lbs</b> |
| 1                               | Big Bluestem       | Andropogon gerardii     | 10.00           | 50.00          |
| 2                               | Side-oats Grama    | Bouteloua curtipendula  | 2.00            | 10.00          |
| 3                               | Switchgrass        | Panicum virgatum        | 3.00            | 15.00          |
| 4                               | Indiangrass        | Sorgastrum nutans       | 4.00            | 20.00          |
| 5                               | Little Bluestem    | Schizachryium scoparium | 5.00            | 25.00          |
| <b>SUBTOTAL GRASS/SEDGE</b>     |                    |                         | <b>24.00</b>    | <b>120.00</b>  |
| <b>DRILLED RATE<sup>1</sup></b> |                    |                         |                 |                |

Client provided seed tags and receipts for:

Big Bluestem        60 bulk pounds, 97% pure, 90% germination,    Genetic Origin: Dakota Co, MN  
Side-oats Grama    35 bulk pounds, 90% pure, 41% germination,    Genetic Origin: Benton Co, MN  
Switchgrass        25 bulk pounds, 90% pure, 95% germination,    Forestburg Variety  
Indiangrass       25 bulk pounds, 90% pure, 8% germination, 87% dormant. Genetic Origin: Sherburne Co.  
Little Bluestem    35 bulk pounds, 85% pure, 90% germination,    Genetic Origin: Fillmore County