

Vegetation Establishment – Alexandria Session



bwsr.state.mn.us

CREP Seeding Guidelines:

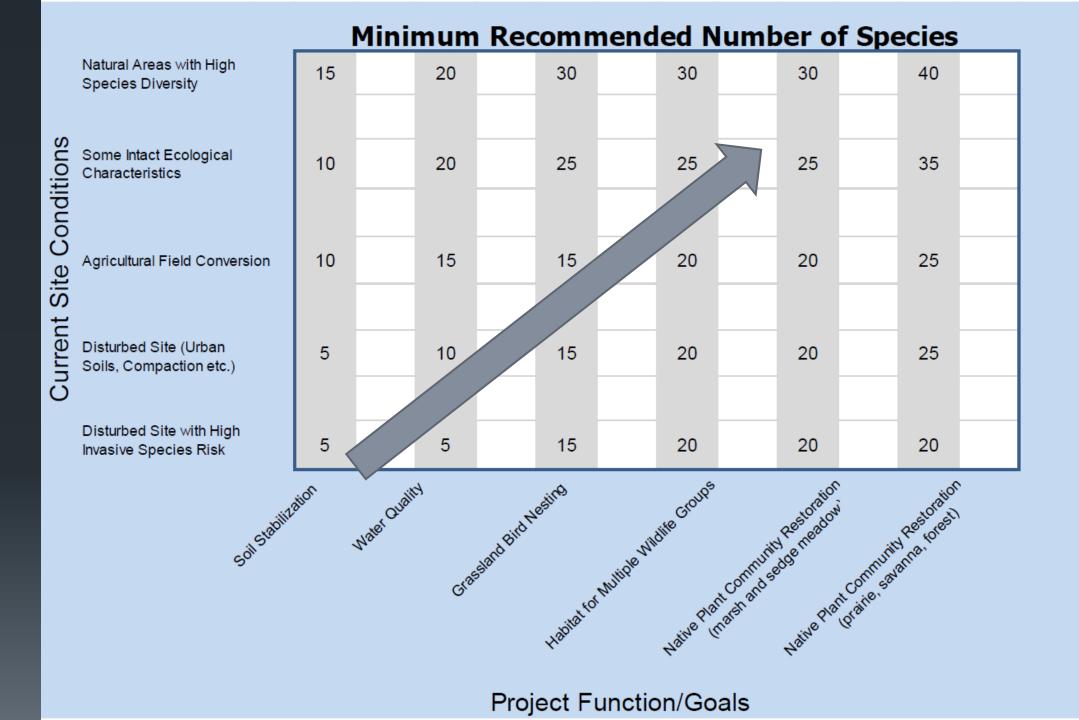
CRP Practice	State of MN Requirements for Vegetation Establishment								
	327 Standard (native species								
	Minimum:	1.A - Native Grasses and Forbs							
CP-2	Preferred:	1.A - Native Grasses and Forbs: Additional forbs up to Standard maximum							
J	Additional Option:	Refer to NRCS/BWSR Guidelines for seed mixtures benefitting monarchs							
		and beneficial insects. Monarch Food Plots limited to 10% of the offered							
		CP-2 acres.							

State of MN Requirements for Vegetation Establishment							
tandard (native species of							
imum:	Use of Table 12 required (native species only)						
erred:	Additional use of Table 13: Additional forbs up to Standard maximum, when width allows						
i	andard (native species of mum:						

CREP Seeding Guidelines:

CRP Practice	State of MN Requirements for Vegetation Establishment							
CP-23	657 Standard (native species Minimum - Adjacent Upland: Minimum - Wetland:	only) Herbaceous Upland: 327 – Conservation Cover, Native Grasses, Forbs and Legumes Forested Upland: 612 - Tree/Shrub Establishment Refer to Technical Note #31: 657 - Wetland Restoration						

CRP Practice	State of MN Requirements for Vegetation Establishment								
	657 Standard (native species	only)							
CP-23a	Minimum - Adjacent Upland:	643 - Tallgrass Prairie Specifications							
CP-25d	Preferred - Adjacent Upland:	Refer to NRCS/BWSR Guidelines for seed mixtures benefitting monarchs and beneficial insects.							
	Minimum - Wetland:	Refer to Technical Note #31: 657 - Wetland Restoration							



Seed Calculators:

- Can be found on the NRCS e-fotg
- https://www.nrcs.usda.gov/wps/portal/nrcs/detail/mn/technical/ecoscience/agronom y/?cid=nrcseprd1316625

Seeding Tools

- > 512 Forage and Biomass Planting (XLSM; 1 MB)
- Conservation Seeding Calculator Workbook 8/2018 (XLS; 561 KB)
 - 327 Conservation Cover
 - 342 Critical Area Planting
 - > 393 Filter Strip
 - 643 Restoration of Rare or Declining Natural Communities
 - 657 Wetland Restoration

Conservation Reserve Enhancement Program (CREP) Seeding Calculator Workbook – 8/2018

NRCS Seed Calculators

	PRACTICE (check)	643 - Resto	ration and Mana	gement of Declinir	ng Habitats					
		CRP CP-25	/CP-38E - Resto	ration and Manage	ement of Declining	Habitat				
		CRP CP-23	- Wetland Resto	ration Buffer						
		CRP CP-27	/28 - Farmable V	Vetland Buffer						
		CRP CP-37	- Duck Nesting H	labitat						
		OTHER								
						Backgrou	Ind Information			
	PLANNED %		TOTAL SEEDS				SEEDS/	COC	coc	Total
GRASS SPECIES	OF GRASS COMPONENT BY	PLS/AC.	SQ. FOOT	SQ./FT			SQ. FOOT	Selected	Reference	Pounds
	SEEDS/SQ. FOOT			<u>1</u> /	<u>2</u> /		At 1 lb. Rate		<u>6</u> /	PLS
	Planned			Can't Exceed	Planned %					
Indiangrass	0 to 25	0.00	0.0	#DIV/0!	#DIV/0!	193000	4.4		4	0.0
Big Bluestem	0 to 25	0.00	0.0	#DIV/0!	#DIV/0!	176000	4.0		4	0.0
Sideoats Grama	0 to 30	0.00	0.0	#DIV/0!	#DIV/0!	180000	4.1		6	0.0
Little Bluestem	0 to 30	0.00	0.0	#DIV/0!	#DIV/0!	286000	6.6		5	0.0
Prairie Sandreed	0 to 30	0.00	0.0	#DIV/0!	#DIV/0!	275000	6.3		7	0.0
Blue Grama	0 to 20	0.00	0.0	#DIV/0!	#DIV/0!	750000	17.2		8	0.0
Switchgrass	0 to 5	0.00	0.0	#DIV/0!	#DIV/0!	390000	9.0		5	0.0
Prairie Cordgrass	0 to 5	0.00	0.0	#DIV/0!	#DIV/0!	183000	4.2		4	0.0
Prairie Dropseed	0 to 10	0.00	0.0	#DIV/0!	#DIV/0!	224000	5.1		9	0.0
Rough Dropseed	0 to 10	0.00	0.0	#DIV/0!	#DIV/0!	480000	11.0		9	0.0
Canada Wildrye	0 to 10	0.00	0.0	#DIV/0!	#DIV/0!	115000	2.6		5	0.0
Green Needlegrass	0 to 10	0.00	0.0	#DIV/0!	#DIV/0!	180000	4.1		5	0.0
Porcupine grass	0 to 10	0.00	0.0	#DIV/0!	#DIV/0!	57000	1.3		6	0.0
June grass	0 to 5	0.00	0.0	#DIV/0!	#DIV/0!	2315000	53.1		7	0.0
Western Wheatgrass	0 to 10	0.00	0.0	#DIV/0!	#DIV/0!	112000	2.6		2	0.0
Slender Wheatgrass	0 to 10	0.00	0.0	#DIV/0!	#DIV/0!	155000	3.6		5	0.0
Canada Bluejoint	0 to 5	0.00	0.0	#DIV/0!	#DIV/0!	4480000	102.8		5	0.0
Virginia Wildrye	0 to 10	0.00	0.0	#DIV/0!	#DIV/0!	96000	2.2		3	0.0
Kalms Brome	0 to 10	0.00	0.0	#DIV/0!	#DIV/0!	128000	2.9		5	0.0
									_	
	TOTAL Pounds PLS	0.00	0.0	#DIV/0!			AVE COC GRASS	#DIV/0!		

- Easy to use calculators for determining seed mixes
- Use the findings along with info on suitable alternative from the NRCS tech note #31 to find a mix that works with your seed vendor.

Specific calculator for each practice type:

	PLANNED %	Π	POUNDS	TOTAL SEEDS/	% BY SEEDS		Seeds/Pound	SEEDS/	TOTAL		
GRASS SPECIES	OF GRASS MIX BY	П	PLS/AC.	SQ. FOOT	SQ./FT			SQ. FOOT	POUNDS		
	SEEDS/SQ. FOOT	\Box	'	<u> </u>	<u>1</u> /			At 1 lb./Ac Rate	PLS		
	Planned	Π									
Big Bluestem	0 to 50	T	0.00	0.0	#DIV/0!	#DIV/0!	176000	4.0	0.0		
Blue Grama	0 to 25	j J	0.00	0.0	#DIV/0!	#DIV/0!	750000	17.2	0.0		
Indiangrass	0 to 25	j J	0.00	0.0	#DIV/0!	#DIV/0!	193000	4.4	0.0		
Little Bluestem	0 to 25		0.00	0.0	#DIV/0!	#DIV/0!	286000	6.6	0.0		
Prairie Cordgrass	0 to 100		0.00	0.0	#DIV/0!	#DIV/0!	183000	4.2	0.0		
Sideoats Grama	0 to 25		0.00	0.0	#DIV/0!	#DIV/0!	180000	4.1	0.0		
Switchgrass	0 to 100		0.00	0.0	#DIV/0!	#DIV/0!	390000	9.0	0.0		
			<u> </u>	<u> </u>							
Canada Wildrye	0 to 25	L I	0.00	0.0	#DIV/0!	#DIV/0!	115000	2.6	0.0		
Fringed Brome	0 to 50	L I	0.00	0.0	#DIV/0!	#DIV/0!	160000	3.7	0.0		
Green Needlegrass	0 to 25	j I	0.00	0.0	#DIV/0!	#DIV/0!	180000	4.1	0.0		
Kalms Brome	0 to 25		0.00	0.0	#DIV/0!	#DIV/0!	128000	2.9	0.0		
Slender Wheatgrass	0 to 25	17	0.00	0.0	#DIV/0!	#DIV/0!	155000	3.6	0.0		
Virginia Wildrye	0 to 25		0.00	0.0	#DIV/0!	#DIV/0!	96000	2.2	0.0		
Western Wheatgrass	0 to 50	11	0.00	0.0	#DIV/0!	#DIV/0!	112000	2.6	0.0		

TOTAL POUNDS PLS 0.00 0.0 #DIV/0!

1/ ACTUAL SEEDS PER SQUARE FOOT SHALL BE WITHIN THE RANGE SPECIFIED IN PLANNED CONDITION

						Backgroun	d Information					
				% FORBS BY				TOTAL				
FORB SPECIES		OUNCES	TOTAL SEEDS/	SEEDS		SEEDS/oz	SEEDS/	OUNCES				
TOND BELOILS		PLS/AC	SQ. FOOT	SQ./FT			SQ. FOOT	PLS				
							At 1 oz/ac Rate					
Canada Goldenrod	(Solidago canadensis)	0.00	0.00	#DIV/0!		287500	6.6	0.0				
Cup Plant	(Silphium perfoliatum)	0.00	0.00	#DIV/0!		1400	0.0	0.0				
Giant Hyssop	(Agastache foeniculum)	0.00	0.00	#DIV/0!		91000	2.1	0.0				
Giant/Late Goldenrod	(Solidago gigantea)	0.00	0.00	#DIV/0!		250000	5.7	0.0				
Grass-leaved Goldenrod	(Euthamia graminifolia)	0.00	0.00	#DIV/0!		350000	8.0	0.0				
Ironweed	(Veronia fasticulata)	0.00	0.00	#DIV/0!		24000	0.6	0.0				
Joe-pye Weed	(Eutrochium maculatum)	0.00	0.00	#DIV/0!		95000	2.2	0.0				
Mountain Mint	(Pycnanthemum virginianum)	0.00	0.00	#DIV/0!		220000	5.1	0.0				
New England Aster	(Symphyotrichum novae- angliae)	0.00	0.00	#DIV/0!		66000	1.5	0.0				
Sneezeweed	(Helenium autumnale)	0.00	0.00	#DIV/0!		130000	3.0	0.0				
Stiff Goldenrod	(Solidago rigida)	0.00	0.00	#DIV/0!		41000	0.9	0.0				
Panicled Aster	(Symphyotrichum	0.00	0.00	#DIV/0!		156000	3.6	0.0				
Swamp Milkweed	(Asclepias incarnata)	0.00	0.00	#DIV/0!		4800	0.1	0.0				
White Sage	(Artemisia ludoviciana)	0.00	0.00	#DIV/0!		4048000	92.9	0.0				
Wild Bergamot	(Monarda fistulosa)	0.00	0.00	#DIV/0!		70000	1.6	0.0				
Yellow Coneflower	(Ratibida pinnata)	0.00	0.00	#DIV/0!		30000	0.7	0.0				
	TOTAL OUNCES PLS	0.00	0.0	#DIV/0!								
 ↓ 327 	CREP CP2 Monarch Foo	d Plot	327 CREP CP2	MonFoodPlo	tExamp	le 327 C	CREP CP2 CP23 N	Vative	393 CREP	CP-21	Nativ	es

Multiple tabs within the workbook

When Can Restoration or Reimbursement Occur?

RIM can start to C/S any eligible costs starting when the RIM Agreement is executed

RIM can reimburse after the RIM Easement has been recorded

Certifying Veg Work, Submitting for Payment

Ε.	SWCD CERTIFICATION									
	I certify that an inspection has been performed in part C have been completed and are in acco practice standards and specifications.	I certify that I have reviewed this voucher and all supporting information and that to the best of my knowledge and belief, the quantities and billed costs or disbursements are accurate and are in accordance with terms of the program identified.								
	(Conservation District Technical Representative)			(Date)		(Authorized SWCD Representativ	e)		(Date)	

SWCD Certification:

- Signatures here certify that all costs are accurate, ok to be paid by BWSR, and the project meets BWSR standards.
- Can be signed by:
 - SWCD tech,
 - SWCD manager,
 - SWCD Board member,
 - other SWCD-authorized persons which may be Farm Bill or NRCS staff
- Who should sign is determined by each SWCD

RIM Conservation Planning

SWCD CHECKLIST Conservation Easement Acquisition Part II

Conservation Plan Package

___CEPPW (original or amended)

-TP

Conservation Plan map

Conservation Practice Plan Conservation Plan Signature Page (send with recorded easement)

Easement Stage

15) Date	Received updated property abstract from the landowner (if applicable)
16) Date	Requested title insurance commitment from title insurance agent
17) Date	Received title insurance commitment (Should be within 14 days of request.)
18) Date	Obtain copies of consents, subordinations, and other related documents pertaining to exceptions listed in Schedule B of title commitment
19) Date	Conservation Plan package completed and sent to BWSR (contains components listed above)
20) Date	Title insurance commitment and copies of related documents mailed or emailed to BWSR (email to <u>bwsr.rim@state.mn.us</u>)
	Notes: 1) Title commitment must be sent to BWSR in the same format as originally received. 2) <u>Do not</u> send originals of consents or other documents that need to be recorded. 3) If lender suddenly requests to be listed as a co-payee, and they are not already listed as such on the agreement, request written permission from the landowner to add the lender as a co-payee, and forward it to BWSR.

RIM Conservation Planning

- Conservation planning is not just a checklist item
- Conservation planning should begin day 1
- Should be a recurring topic when meeting with landowner
- Most effort should be spent on conservation planning and site prep
- Understand landowners abilities
- Review official plan when they sign CRP, review again when they sign easement
- Be adaptive







Communication is Key

- Communicate clear expectations
- Landowner responsibilities
- Site prep
- Timeframe
- Upfront costs
- Weed control
- Repeat, Repeat, Repeat
- You never know what information the landowner will hold on to





Expectations Versus Reality





Developing Seed Mixes

- How many develop seed mixes?
- Species prices
- Assumption High Diversity = High Cost
- Contract with Agassiz Seed



Seed Mix 1							
Species	PLS/acre	seeds/sqft					
Indiangrass	1	4.4					
Big Bluestem	1.2	4.8					
Sideoats Grama	1.25	5.2					
Blue Grama	0.25	4.3					
Canda Wildrye	0.1	0.3					
Virginia Wildrye	0.9	2					

- 5	Showy Penstemon	4	1.29
5	End or opris	3	1.38
5		1/2/	
70	Gorden Arexander		1.01
S	Sneezeweed	0.75	2.24
E	Black-eyed Susan	1	2.11
C	Common Milkweed	3.85	0.35
ľ	Maxmillian Sunflower	7	2.09
١	White Prairie Clover	5	2.18

Total Species	15	
Total seeds/sqft	35.3	
% Grass	59.6	
% Flower	40.4	
% Milkweed	1	
% Forbs Monarch Prefere	67	
Total PLS/Acre	6.925	

SpeciesPLS/acreseeds/sqftIndiangrass14.4Big Bluestem14.1Sideoats Grama14.1Blue Grama0.23.4Slender Wheatgrass0.62.1Virginia Wildrye0.51.1Little BlueStem0.53.3Dotted Blazingstar0.10.02Purple Coneflower0.10.02Showy Penstemon0.10.03Butterfly Weed0.20.02Evening Primrose0.51.03Hoary Vervain10.64Lance-leaved Coreopsis20.92Leadplot det the Wr0.30.11Long L Get the Wr0.30.11Commun Ox-eye10.14Great Blue Lobelia0.11.15Meadow Blazing Star0.10.13Nild Bergamot11.61New England Aster0.10.15Swamp Milkweed0.50.06Blackeyed Susan12.11Common Milkweed40.37Giant Hysopp0.40.84Purple Prairie Clover10.94White Prairie Clover10.44Total Species31Stiff Goldenrod10.94White Prairie Clover40.1% Grass59.9% Flower40.1% Milkweed1.17% Forbs Monarch Prefered79Total Species31740% Flower6.25	Seed Mix 2		
Big Bluestem 1 4 Sideoats Grama 1 4.1 Blue Grama 0.2 3.4 Slender Wheatgrass 0.6 2.1 Virginia Wildrye 0.5 1.1 Little BlueStem 0.5 3.3 Dotted Blazingstar 0.1 0.02 Purple Coneflower 0.1 0.03 Butterfly Weed 0.2 0.02 Evening Primrose 0.5 1.03 Hoary Vervain 1 0.64 Lance-leaved Coreopsis 2 0.92 Leadplett 0.3 0.11 Long Particle aved Coreopsis 2 0.92 Canada Part Part 0.3 0.11 Long Part Part 0.3 0.11 Colden Alexanders 1 0.25 Great Blue Lobelia 0.1 1.15 Meadow Blazing Star 0.1 0.03 New England Aster 0.1 0.16 Swamp Milkweed 0.5 0.06 Blackeyed Susan 1 2.11 Common Milkweed 1 0.44	Species	PLS/acre	seeds/sqft
Sideoats Grama 1 4.1 Blue Grama 0.2 3.4 Slender Wheatgrass 0.6 2.1 Virginia Wildrye 0.5 1.1 Little BlueStem 0.5 3.3 Dotted Blazingstar 0.1 0.02 Purple Coneflower 0.1 0.02 Showy Penstemon 0.1 0.03 Butterfly Weed 0.2 0.02 Evening Primrose 0.5 1.03 Hoary Vervain 1 0.64 Lance-leaved Coreopsis 2 0.92 Leadp 1 0.3 0.11 Long 1 dec 1 1 W 1 0.3 0.11 Golden Alexanders 1 0.25 Great Blue Lobelia 0.1 1.15 Meadow Blazing Star 0.1 0.13 Wild Bergamot 1 1.61 New England Aster 0.1 0.15 Swamp Milkweed 0.5 0.06 Blackeyed Susan 1 2.11 Common Milkweed 4 0.37 Giant Hysopp 0.4 0.84 Purple Prairie Clover 4.25 1.75 Stiff Goldenrod 1 0.94 White Prairie Clover 4.25 1.75 Stiff Goldenrod 1 0.94 White Prairie Clover 4.01 % Milkweed 1.17 % Grass 59.9	Indiangrass	1	4.4
Blue Grama 0.2 3.4 Slender Wheatgrass 0.6 2.1 Virginia Wildrye 0.5 1.1 Little BlueStem 0.5 3.3 Dotted Blazingstar 0.1 0.02 Purple Coneflower 0.1 0.03 Butterfly Weed 0.2 0.02 Evening Primrose 0.5 1.03 Hoary Vervain 1 0.64 Lance-leaved Coreopsis 2 0.92 Leadp 1 0.3 0.11 Commun Ox-eye 1 0.3 0.11 Golden Alexanders 1 0.25 0.39 Great Blue Lobelia 0.1 1.15 0.3 Meadow Blazing Star 0.1 0.10 0.31 Wild Bergamot 1 1.61 0.1 1.15 Swamp Milkweed 0.5 0.06 0.37 0.36 Blackeyed Susan 1 2.11 2.5 0.5 0.16 Blackeyed Susan 1 2.11 2.5 1.76 Max Sunflower 0.5 0.16	Big Bluestem	1	4
Slender Wheatgrass 0.6 2.1 Virginia Wildrye 0.5 1.1 Little BlueStem 0.5 3.3 Dotted Blazingstar 0.1 0.02 Purple Coneflower 0.1 0.02 Showy Penstemon 0.1 0.03 Butterfly Weed 0.2 0.02 Evening Primrose 0.5 1.03 Hoary Vervain 1 0.64 Lance-leaved Coreopsis 2 0.92 Leadplot det 14 Wr 0.3 0.11 Long F det 14 Wr 0.3 0.11 Long F det 14 Wr 0.3 0.11 Long F det 14 Wr 0.3 0.11 Source 1 0.14 Golden Alexanders 1 0.25 Great Blue Lobelia 0.1 1.15 Meadow Blazing Star 0.1 0.03 Wild Bergamot 1 1.61 New England Aster 0.1 0.15 Swamp Milkweed 0.5 0.06 Blackeyed Susan 1 2.11 Common Milkweed 4 0.5 Giant Hysopp 0.4 0.84 Purple Prairie Clover 4.25 1.76 Max Sunflower 0.5 0.15 Stiff Goldenrod 1 0.94 White Prairie Clover 1 0.44 Total Species 31 Total seeds/sqft 37.7 % Grass 59.9 % Flower 40.1 % Milkweed 1.17	Sideoats Grama	1	4.1
Virginia Wildrye0.51.1Little BlueStem0.53.3Dotted Blazingstar0.10.02Purple Coneflower0.10.02Showy Penstemon0.10.03Butterfly Weed0.20.02Evening Primrose0.51.03Hoary Vervain10.64Lance-leaved Coreopsis20.92Leadplot Prove0.30.11Long Foder Prove0.30.11Long Foder Prove10.14Golden Alexanders10.25Great Blue Lobelia0.11.15Meadow Blazing Star0.10.03Wild Bergamot11.61New England Aster0.10.15Swamp Milkweed0.50.06Blackeyed Susan12.11Common Milkweed40.37Giant Hysopp0.40.84Purple Prairie Clover10.44Total Species31Total Species31Total seeds/sqft37.7% Forbs Monarch Prefered79	Blue Grama	0.2	3.4
Little BlueStem0.53.3Dotted Blazingstar0.10.02Purple Coneflower0.10.03Butterfly Weed0.20.02Evening Primrose0.51.03Hoary Vervain10.64Lance-leaved Coreopsis20.92Leadp10.4Long Forder (ht Wr)0.30.11Long Forder (ht Wr)0.30.11Common Ox-eye10.14Golden Alexanders10.25Great Blue Lobelia0.11.15Meadow Blazing Star0.10.15New England Aster0.10.15Swamp Milkweed0.50.06Blackeyed Susan12.11Common Milkweed40.37Giant Hysopp0.40.84Purple Prairie Clover4.251.76Max Sunflower0.50.15Stiff Goldenrod10.94White Prairie Clover10.44Total Species31Total Species31Kerss59.9% Flower40.1% Milkweed1.17% Forbs Monarch Prefered79	Slender Wheatgrass	0.6	2.1
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Purple Coneflower0.10.02Showy Penstemon0.10.03Butterfly Weed0.20.02Evening Primrose0.51.03Hoary Vervain10.64Lance-leaved Coreopsis20.92Leadplote0.40.30.11Long Forder0.40.30.11Long Forder0.40.30.11Long Forder0.40.30.11Long Forder0.40.30.11Common Ox-eye10.140.1Golden Alexanders10.25Great Blue Lobelia0.11.15Meadow Blazing Star0.10.03Wild Bergamot11.61New England Aster0.10.15Swamp Milkweed0.50.06Blackeyed Susan12.11Common Milkweed40.37Giant Hysopp0.40.84Purple Prairie Clover4.251.76Max Sunflower0.50.15Stiff Goldenrod10.94White Prairie Clover10.44Total Species31Total seeds/sqft37.7% Grass59.9% Flower40.1% Milkweed1.17% Forbs Monarch Prefered79			
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Butterfly Weed 0.2 0.02 Evening Primrose 0.5 1.03 Hoary Vervain 1 0.64 Lance-leaved Coreopsis 2 0.92 Leadplot 0.3 0.11 Long I declot 10 wr 0.3 0.11 Long I declot 10 wr 0.3 0.11 Common Ox-eye 1 0.3 Common Ox-eye 1 0.14 Golden Alexanders 1 0.25 Great Blue Lobelia 0.1 1.15 Meadow Blazing Star 0.1 0.03 Wild Bergamot 1 1.61 New England Aster 0.1 0.15 Swamp Milkweed 0.5 0.06 Blackeyed Susan 1 2.11 Common Milkweed 4 0.37 Giant Hysopp 0.4 0.84 Purple Prairie Clover 4.25 1.76 Max Sunflower 0.5 0.15 Stiff Goldenrod 1 0.94 White Prairie Clover 1 0.44 Total Species 31 Total seeds/sqft 37.7 % Grass 59.9 % Flower 40.1 % Milkweed 1.17 % Forbs Monarch Prefered 79	Purple Coneflower	0.1	0.02
Evening Primrose0.51.03Hoary Vervain10.64Lance-leaved Coreopsis20.92Leadplot0.30.11Long Fode Content0.30.11Long Fode Content0.30.39Camada Dir Zeth0.70.39Commen Ox-eye10.14Golden Alexanders10.25Great Blue Lobelia0.11.15Meadow Blazing Star0.10.03Wild Bergamot11.61New England Aster0.10.15Swamp Milkweed0.50.06Blackeyed Susan12.11Common Milkweed40.37Giant Hysopp0.40.84Purple Prairie Clover4.251.76Max Sunflower0.50.15Stiff Goldenrod10.94White Prairie Clover10.44Total Species31Total seeds/sqft37.7% Grass59.9% Flower40.1% Milkweed1.17% Forbs Monarch Prefered79	Showy Penstemon	0.1	0.03
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Lance-leaved Coreopsis 2 0.92 Leadplet deriver 0.3 0.11 Long F deriver 0.4 0.3 0.11 Long F deriver 0.4 0.3 0.39 Canada J if et 0.1 0.39 Canada J if et 0.1 0.39 Commin Ox-eye 1 0.14 Golden Alexanders 1 0.25 Great Blue Lobelia 0.1 1.15 Meadow Blazing Star 0.1 0.3 Wild Bergamot 1 1.61 New England Aster 0.1 0.15 Swamp Milkweed 0.5 0.06 Blackeyed Susan 1 2.11 Common Milkweed 4 0.37 Giant Hysopp 0.4 0.84 Purple Prairie Clover 4.25 1.76 Max Sunflower 0.5 0.15 Stiff Goldenrod 1 0.94 White Prairie Clover 1 0.44 Total Species 31 Total seeds/sqft 37.7 % Grass 59.9 % Flower 40.1 % Milkweed 1.17	Evening Primrose	0.5	1.03
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Long F. ded int wr 1.93 Canada Lif zet 0.39 Commen Ox-eye 1 Golden Alexanders 1 Great Blue Lobelia 0.1 Meadow Blazing Star 0.1 Meadow Blazing Star 0.1 New England Aster 0.1 Swamp Milkweed 0.5 Blackeyed Susan 1 Common Milkweed 4 Purple Prairie Clover 4.25 Max Sunflower 0.5 Stiff Goldenrod 1 Vinte Prairie Clover 37.7 % Grass 59.9 % Flower 40.1 % Milkweed 1.17 % Forbs Monarch Prefered 79	Lance-leaved Coreopsis	2	0.92
Canada Lif Zet h 0.39 Commen Ox-eye 1 0.14 Golden Alexanders 1 0.25 Great Blue Lobelia 0.1 1.15 Meadow Blazing Star 0.1 0.03 Wild Bergamot 1 1.61 New England Aster 0.1 0.15 Swamp Milkweed 0.5 0.06 Blackeyed Susan 1 2.11 Common Milkweed 4 0.37 Giant Hysopp 0.4 0.84 Purple Prairie Clover 4.25 1.76 Max Sunflower 0.5 0.15 Stiff Goldenrod 1 0.94 White Prairie Clover 1 0.44 Total Species 31 0.94 White Prairie Clover 1 0.44 Total seeds/sqft 37.7 4 % Grass 59.9 9 % Flower 40.1 1 % Milkweed 1.17 7 % Forbs Monarch Prefered 79 9	Leadp	0.3	0.11
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Meadow Blazing Star0.10.03Wild Bergamot11.61New England Aster0.10.15Swamp Milkweed0.50.06Blackeyed Susan12.11Common Milkweed40.37Giant Hysopp0.40.84Purple Prairie Clover4.251.76Max Sunflower0.50.15Stiff Goldenrod10.94White Prairie Clover10.44Total Species31Total seeds/sqft37.7% Grass59.9% Flower40.1% Milkweed1.17% Forbs Monarch Prefered79	Golden Alexanders	1	0.25
Wild Bergamot11.61New England Aster0.10.15Swamp Milkweed0.50.06Blackeyed Susan12.11Common Milkweed40.37Giant Hysopp0.40.84Purple Prairie Clover4.251.76Max Sunflower0.50.15Stiff Goldenrod10.94White Prairie Clover10.44Total Species31Total seeds/sqft37.7% Grass59.9% Flower40.1% Milkweed1.17% Forbs Monarch Prefered79	Great Blue Lobelia	0.1	1.15
New England Aster0.10.15Swamp Milkweed0.50.06Blackeyed Susan12.11Common Milkweed40.37Giant Hysopp0.40.84Purple Prairie Clover4.251.76Max Sunflower0.50.15Stiff Goldenrod10.94White Prairie Clover10.44Total Species31Total seeds/sqft37.7% Grass59.9% Flower40.1% Milkweed1.17% Forbs Monarch Prefered79	Meadow Blazing Star	0.1	0.03
Swamp Milkweed0.50.06Blackeyed Susan12.11Common Milkweed40.37Giant Hysopp0.40.84Purple Prairie Clover4.251.76Max Sunflower0.50.15Stiff Goldenrod10.94White Prairie Clover10.44Total Species31Total seeds/sqft37.7% Grass59.9% Flower40.1% Milkweed1.17% Forbs Monarch Prefered79	Wild Bergamot	1	1.61
Blackeyed Susan12.11Common Milkweed40.37Giant Hysopp0.40.84Purple Prairie Clover4.251.76Max Sunflower0.50.15Stiff Goldenrod10.94White Prairie Clover10.44Total Species31Total seeds/sqft37.7% Grass59.9% Flower40.1% Milkweed1.17% Forbs Monarch Prefered79	New England Aster	0.1	0.15
Common Milkweed40.37Giant Hysopp0.40.84Purple Prairie Clover4.251.76Max Sunflower0.50.15Stiff Goldenrod10.94White Prairie Clover10.44Total Species31	Swamp Milkweed	0.5	0.06
Giant Hysopp 0.4 0.84 Purple Prairie Clover 4.25 1.76 Max Sunflower 0.5 0.15 Stiff Goldenrod 1 0.94 White Prairie Clover 1 0.44 Total Species 31 Total seeds/sqft 37.7 % Grass 59.9 % Flower 40.1 % Milkweed 1.17 % Forbs Monarch Prefered 79	Blackeyed Susan	1	2.11
Purple Prairie Clover4.251.76Max Sunflower0.50.15Stiff Goldenrod10.94White Prairie Clover10.44Total Species31Total seeds/sqft37.7% Grass59.9% Flower40.1% Milkweed1.17% Forbs Monarch Prefered79	Common Milkweed	4	0.37
Max Sunflower0.50.15Stiff Goldenrod10.94White Prairie Clover10.44Total Species31	Giant Hysopp	0.4	0.84
Stiff Goldenrod10.94White Prairie Clover10.44Total Species31Total seeds/sqft37.7% Grass59.9% Flower40.1% Milkweed1.17% Forbs Monarch Prefered79	Purple Prairie Clover	4.25	1.76
White Prairie Clover10.44Total Species31Total seeds/sqft37.7% Grass59.9% Flower40.1% Milkweed1.17% Forbs Monarch Prefered79	Max Sunflower	0.5	0.15
Total Species31Total seeds/sqft37.7% Grass59.9% Flower40.1% Milkweed1.17% Forbs Monarch Prefered79	Stiff Goldenrod	1	0.94
Total seeds/sqft37.7% Grass59.9% Flower40.1% Milkweed1.17% Forbs Monarch Prefered79	White Prairie Clover	1	0.44
Total seeds/sqft37.7% Grass59.9% Flower40.1% Milkweed1.17% Forbs Monarch Prefered79			
% Grass59.9% Flower40.1% Milkweed1.17% Forbs Monarch Prefered79	Total Species	31	
% Flower40.1% Milkweed1.17% Forbs Monarch Prefered79	Total seeds/sqft	37.7	
% Milkweed1.17% Forbs Monarch Prefered79	% Grass	59.9	
% Forbs Monarch Prefered 79	% Flower	40.1	
	% Milkweed	1.17	
Total PLS/Acre 6.25	% Forbs Monarch Prefered	79	
	Total PLS/Acre	6.25	BALL DING





Working with Landowners & Vendors

- Be comfortable being the middle man
- Understand vendors experience
- Encourage bids
- Offer to review seed mixes prior to planting
- Understand there's more than one way to achieve the same results
- Vendor Issues to be aware of
 - Assignment of payment issues
 - Seed mix prices
 - Site Prep rock picking etc.



Cost Share Vouchers

- Review bills and invoices
- Certifying Work
- Timeframes
- Working with FSA
- Partial Payments

Key Take Aways

- Conservation planning should begin day 1
- Communication
- Most effort should be spent on conservation planning and site prep
- Be adaptive

Questions?