

## How You Can Participate in the Plant Materials Plantings - Field Plantings Testing New Plants for potential plant materials release for within the three states. Field Office can request a Field Trial for using plants to perform specific need that is not widely accepted. Educational Plantings Increase Plantings Testing New Plants for potential plant materials release for within the three states. Field Office can request seed or plants of a plant materials release for demonstrating. Commercial growers increase releases (product) for landowners to purchase.

# Field Testing Plant Materials Field Plantings-Unproven Plant Materials Issue a Bulletin looking for potential sites.

<b>NRC</b>	CN	stural Resources		Natural Resilience Contenuation Service Parkade Cortes, Spite 250 530 Batterna Lond 25 West Colombia, Messouri 05203
Photographics Districts			tala Plant Paintings for FV 201	February 4, 20113
Purpose. To so	ticit fleto		ed By: April 12, 2013 potential plant materials fic	ld plantings.
Expiration Date				
Background, T	No Eliabore		en 2013 Missouri Field Plantings	is in search of planting sites:
1) 9083274 selection (Overgoned name Bitechnell Bitechnell selection (overgone) (overgon	Any	PROCEASE Practices ACM Field Worders ACM Field Worder	Nites: Lourny uplant, the many control of the contr	The original collection for the Dig Bhostonia substitute was for the Bhostonia substitute was for anisotratific tall first, research, todiging restitutes, it was interested for discussion less the format of the discussion less for the control of the todient from Manusco Central provent fireage performance.
J)9003306 Havenfust onlys, Corne cross-cornel Street, Street Visited Street Visited Visi	1130, 115 C, 131A	Proctice e 646 Shallow Water Bewinpment to m57 Westants to m57 Westant featoration or #55 Ethiampement, Total size of \$.0 acre	Sites Silk beach, allo' clay beach, allo' oby. Prince searling February 1 - Starch 15 <sup>20</sup>	The original earliections unuse from Laboral County Minasses atong the Ministering Illine Threedglads.
DISTUE				

3) Butterhide toybecame Cityviter sp.	Any	Practice 340- Cover coups- Summer Animal sover erup for 0.5 ac to 2 serve using theirsolve Trailing sey beams	Site - Organic Production Suppression of annoad sastence woods far fail plasted or fathersing spring area, Any sell type. Spring Society dates	The variety of Bolomelsies stepfeness was repleased on a weldfill fixed source; a creal and excitability fixed source; a creal and the step proposed of the state of the proposed of the country of the state of the
ECS-9 requests receive plant ma	will be re stertails.)	rviewed and prioriti Notification of fina	e Plantings) for your comple zed. (Please note that not all I planting sites will be contac by PMC, if you have question	requests will be able to ted.
J.R. Flores				
J.R. Flores State Conservati	onist			
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## Why are field plantings important for Conservation Planning?

Native Plants that become available commercial originates from the PM Program.

Testing in real situations for performance to release.

Plants are part of the solution for the resource concern.

-References

Technical Guide
Technical notes



Transmittal Number 488

NATURAL RESOURCES CONSERVATION SERVICE
MISSOURI AGRONOMY SPECIFICATION

VEGETATION ESTABLISHMENT, HERBACEOUS SEEDING

CODE 723

GENERAL

This item of work shall consist of providing the species selection, site preparation, timing and manner of seeding, and facilitating practices for the establishment of permanent herbaceous vegetation. This specification is the criteria to be applied for the following conservation practice standards.

CONSERVATION COVER 227

CRITICAL AREA PLANTING (427)
PASTURE AND HAYLAND PLANTING (452)
UPLAND WILDLIFE HABITAT MANAGEMENT (445)

The current version of Missouri SeedRate may be used to generate a seeding recommendation and to document the proper completion of the conservation practice. SeedRate creates a US-AGRON-25 form that will be the record of planning and application for the conservation practice. If SeedRate is seeding rate for each species.

SPECIES SELECTION

MATTUE CHANG		
	SPECIES CULTIVARI	S FOR USE IN MISSOURI
Cuttivar	Area of Adaptation	Source of Collection
Curvre River	Statewide	Elantern Missouri Elant and Northmant Nationalis
O'Maria		East and Northeast Nebraska
Seating Graces		I Western towa
62.70	South of I-70	Southern Missouri, Southern Hinese, Northern Arkansas, and Eastern Oktahoma
Wall	Statemide	Eastern Kansas
Pearen	North of L70	Blooth Cambrid Karraum and Signith
	14000100110	Central Nobraska
Charter	Statewide	North Central Nebraska
Aldous	fisharbryvisties	Eastern Kansas
Cimarron	Stought of 1-70.	Southwest Kansas and Oklahoma
- Account	sandy sites only	Panhandle North Central Kensas and South
Certifier	740/05 08 1-70	Cervinal Nebrusko
#Tooler	Michiganicia	Kansas and Oklahoma
PM66-24	Sitetereride	Kanaas and Oklahoma
£1 Pleno	Sitatewicie	Central Oktahoma
Trackway		North Central Nebraska
Rumeey	Statewick	Southern Hinois
		Castern and Central Karnas and Ottahorna Western Ottahorna
	Modelle of L TO	Nestern Oktahoma Netranka
Carve In Brech	Distance	Nondheen Illinois
Blackwood	Distriction	North Central Oklahoma
	South of L70	South Central Texas
Karstow	Lowtend Sites -	East Central Oblahoma
Posts Seutor	Mary th of L.70	North Central and South Central
		Medicanka
Traditioner	North of I-70	Belection from Pathfinder
Pérférante 28	North of I-70	North Central Nebrasks
	Received  Keen Pawness Chertss Aldous Carderon Comper Pake PRAC 24 E PRAC 24 E PRAC 24 E Received Comper Trainers Comper Received Comper Recei	Colore March Colored C

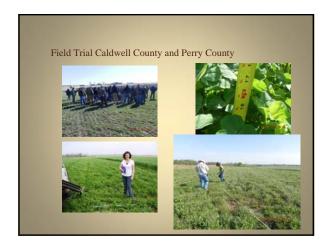
Grass Ngestion	Cultivar	I Arms of Use F	Source of Collection
Virginia Wildry	F AND DOOR WATER	I discount for	Lastern Missouri
	Cutore Bliver	North Miss.	Cass and Compleant Nebraska
Native Warm Season Granes	Rountre-	Statewide	Western Iowa
lig Bluestem	Rountre <sub>e</sub>	Statewide	Southern Missouri, Southern Illinois.
	3000000	SHARING	Northern Arkansas, and Eastern Oklahoo
	Fawnee	North Misses	Finstern Kansas North Central Kansas and South Central
	Pawnee	North Misses	North Central Kansas and South Central
	Charing	State wide	
ittle Bluestern	Aldous		Canterin Kationa Santiferent Karnana and Ohlaherra
		Steamte Missouri, namely	
	Camper	North Misseuri	North Central Kansas and South Cantral
	Cheark		Nebraska Missouri and Southern Illinois
astern Clamageises	Pete	Statewide	Kansas and Oklahoma
Account Course grown	PN4K-24	Statewide	Kansas and Oklahoma
inhermin Cirarma	Shoras	North Misseuri	North Central Nebraska
	El Reno	Stratiewishe	Central Oklahorna
multi server ma e	Burnsay.	Black vide Statewisks	Frank Carried Fishmotos Similares Blimoto
THE REAL PROPERTY.			Fastiern and Christial Kanasa and Oh labor
		Shade wide	Fastern and Central Kansas and Oklahon Western Oklahoma
Control Business	Sietruska 54 Cava-In-Roch	Statewists	Notreaka Southern Himms
rests by pass	Etinolowell	Statewide	Nouthern Blinets
	Alamo		North Central Ohlahoma South Central Lenas
	and the same of th	Minourari	
	Manthew	Entwise Sites	East Central Ohlahuma
	Parti finalist	Nowth Missessel	North Central and South Central National
		North Missouri	
		North Minnouri North Minnouri North Minnouri	North Central Nebraska
Sative Warm Season Legume	and Forbs	T Reconstitute	I Kanaa
artridge Pen	Raley Lack Selection	Scanco tale	Kaman
	Lark Selection	Statewide	Arkanaas
Surgelie Printe ten haven	Kameli Kanoka	Treaties wide	Fansa
Decree Tacking feet	Alexander Germoleem	Statewide Statewide	Figures . Festivacion, Chilaboros .
	The state of the s		
lenghead Conefficwer	Surgitore	Statewicke	Kamaas
		Denton, Mornan, Mordon	
Modure Adjustment	Factor - The emount	of seed needed will	e listed. vary based on the percentage
4) Mirture Adjustment each species in the der JS-AGRON-25 to calcu- practice criteria. Each	Factor — The amount lired mix that is plann- late the amount of se- conservation practice on purposes. Declare	of seed needed will ed and applied to the ed needed to apply t requires a different to the desired percent	Version Consider Franklin is listed on the percentage vary based on the percentage site. Use the current form he minimum seed to meet the minimum amount of seed due
An example of the seer Factors follows the form	fing rate calculations (	for Practice, Method.	and Mixture Adjustment
			re (%) = Seeding Rate (PLS).

## Examine and demonstrate Conservation practice that is not readily accepted over a large area. Does not need to be PM releases

### UNITED STATES DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE CONSERVATION FIELD TRIALS MOPMS-T-1228-CC Title Project Number Cropland 1.1 Controlling crosion on cropland with cropping and residue management systems. Study Type Field Trial Status Active Field Trial Leader Jerry Kaiser, USDA-NRCS, Plant Materials Specialist, Elsberry MO, Doug Peterson, USDA-NRCS, State Grassland Conservationist, Gallatin MG; Mark Abney, USDA-NRCS, Assistant State Soil Scientist, Columbia MG 2012through 2014 Cooperators Land Use Vegetative Practices Cover Crops Resource Consideration/Problem Soil Soil Health Water Water Quality Resource Concern(s) Missouri Soil Health Strategie Plan Conservation Field Trial is documented within Missouri NRCS Soil Health Strategic Plan for Fiscal year 2012. Cool and warm season cover crops will be demonstrated and evaluated fi-their auitability and performance typical following crop production system. Evaluation parameters for characterizing cover crop reaponse will be establishment times; percent eanopy cover. biomass harvest, cov-crop termination success and cash crop stand establishment. Description The cover crops will be mixtures to support or update the USDA NRCS 340 Cover Crop Standard for Missouri.

Ref#6	
	long as possible in the spring to add additional nutrients to the soil and suppress weeds. However, the longer the cover crop is growing the more motsture it removes and could potentially affect the growth and development of the subsequent crop, especially if drought conditions exits. (Sundermeter et al., 1999)
Materials and Methods	Each field trial will be 10 acres, subdivided into 4-2.5 acres plots. This will allow three different cover erop species/mixtures per farm, and one implanted check plot.
	Quantities will be limited to 10 scres per farm and 2 farms/targeted MLRA's of 107, 109,112,113,115, and 131 in areas of cropland.
	Seed cost will be limited to \$25.00/acre for up to 10 acres at \$250/farm in potentially 2 farms/ 6 MLRA's at a cost total of \$3,000. Seed mixtures will be shipped directly to the producer for drilling.
	Seed for the mixtures will be provided by the Elaberry Plant Materials Program.
	Species for consideration in the mixtures  Consideration minimal regimes, will be the base species for all cont season species mixture.  Based on landowner needs the following species will be added to the mixture.  N source- hairy vetch or red clover or crimson clover
	N seavenger- cered rye, or annual ryegram, oilseed radish N seavenger- sammer-Storghum-sudangrass or pearl millet Soil builder- cereal rye, or annual ryegram, red clover or erimon clover Soil builder-summer- Sorghum-sudangram and cow pea Subsoiler-oilsed radish.
	Weed suppressor occurs by:  Weed suppressor summer-pearl millet, or sorghum sudangrass, or buck wheat.  Grazing value summer-pearl millet or sorghum sudangrass.  Grazing value-fall- cereal rye, or annual ryegrass, forage turnip anafor red clover or orimson clover.
1	



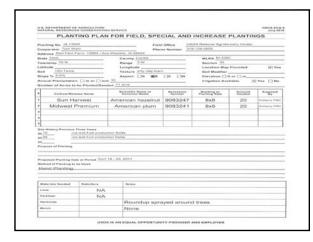




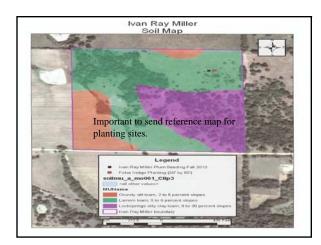


### How To Request Plant Materials

- ECS-009-Fill in forms
- http://plantmaterials.nrcs.usda.gov/technical/references.html
- E-mail note- jerry.kaiser@mo.usda.gov
- Call Elsberry PMC 573-898-2012
  - No cost of seed or plants to landowner for testing the materials.



		ARGB-6GB-6
PLANTING PLAN FOR FIELD, SPECIAL A	ND INCREASE	EPLANTINGS
(Continued)		
To the Completed by the Assisting Conservationist  Does the cooperator understand the purpose of planting?	v== 🗹	No 🔲
Does the cooperator understand the cultural prectices needed?	Yes 🗸	true
Does the site meet the requirements in the planting guide?	Yes V	No.
te it conveniently located?	Yes V	tro
In alle separated with a ferson?	Yes V	No
is it on the east identified in the plant?	Yes	140
Will the planting be grated?	Yes	No V
When		
Has the cooperator agreed to properly manage the planting?	Yes V	No
Are weed control measures needed?	Yes V	No
Will weeds be managed?	Yes Z	No
Will field and equipment be shested prior to planting?	Yes	No [Z]
Does the consecutor need essistance with planting?	V [	Wn [2]
Will NRCS personnel assist with planting?	Yes I'm	No I
Will follow-up assistance be provided?	Yes Y	No
To periodically check on the planting?	Yes Y	No
To complete required evaluations?	Yes V	No
Attach additional notes and instructions to this form as needed		
Evaluations to be conducted:		
Compare new planting to existing materials on site - growth	n, health, vigor, yii	Dia
Comments		
I understand that this planting is for research and demonstration purpose	n and agree to particl	nate in the extablishment,
Comparator: Name/Signature Tow Shahl		Date #-11-2011
Butmitted By: Name/Signature Com Co. Vac		Date April 11, 2011
Approved (SCO): Name/Signature		Date
Approved (PM) Name Bianature Roy Face		Date 4-13-200



### How To Evaluate Plant Materials

Plant Materials Evaluation Worksheet for plantings

Send out (e-mail with attachments) to field offices for follow-up with the plantings.

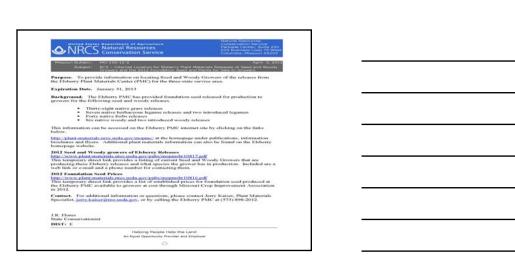


				orksheet for Plantings
Planting No.	5113 03 030	Field C	office Warri	ensteary);
Phanting Location	Herbaceons			N_ Demonstration
Evaluation Date:	9-15-2002		duator: R. Red	man
			Average X	Unfavorable
	9068545	9008546	5=Fair, 7=Poor	r, 9=very poor, 0=none
Species Cultivar, or Accession Stand	wild plum	wild plum	wild plum	
Density	For woodles, t	institute both on.	direction, planted: F	to ber baccom, finite etc plants/eq. fi
Vigor	1			
Ability to Spread Plant Height (in.)	Aur	April 1	3401	
Plant Injury	Intellement for e-	medic: Princes, 6.4gefet.	Moderate, or Neve	
	None	None	Nevere	nating, Based, window, Bire, completion
Kind of Injury	Indicate: diss	more, tennert, rocken	M. Statebalt	sating, Basel, winter, fire, marking
Weed Infestation	Andreas for e		A Justin	1
For Hechaceons:		1	1	
Persone Production				
Yacki tomorecay				
LAUMININE				
Seed Produced you				
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Differ (in.)		-	7.7	
Plant Uniformity			3	The second secon
Ebrume Fring:	Baselleuster Sign	erve ( - 40 % ), Niked	terate (so one), its	(mon ()-80%)
Pattern/Density	Nt.	54	-	
Fruit Production Fruit Mature Date		-	-	

Accounted   Acco	Species, Cult	iver, or	99605-45			StionStill			
Websites   Che   Care		C & 20 2 2 2	rested galac	ett veittet	digrams				
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Nitrogen							- 14		
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Pesticide   Potassium   Instance   Date applies									
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Date #2   Height (in.)					Timbe:			Distor negotie	el la
	Morring	Date #	1						
Comments and Recommendations:									

# Increase PlantingElsberry PMC produces releases of Foundation Seed for growers to purchase.





	Attachment #1 March 2011
Released	owers/Vendors of Elaberry PMC I Varieties and Ecotypes in Production DA NRCSFLANT MATERIAL'S CENTER 200 N. Invy 78 ELSBERRY, MISSOURI 63343 573-689-2012
Grass Releases	
Big Bluestem, Andropogoi	
Northern Iowa Zone 1	16
Central Iowa Zone 2	16
Southern lows Zone 3	16
Northern Missouri Zone 1	4,6,7,10,13
OH-370	7
OZ-70	2.4
Rountree	2, 5, 6, 7, 8,12,14
Canada wildrye, Elymus co	anadensis L.
Northern Iowa Zone 1	
Central Iowa Zone 2	
Southern lowe Zone 3	8, 12
Indiangrass, Sorghastrum	
Northern Iowa Zone 1	16
Ocntral lowe Zone 2	16
Southern Iowa Zone 3	10
Northern Missouri Zone 1	
Western Missouri Zone 2	
Rumsey	2, 6, 7,52,14
Little bluestem, Schizachy	
Ozark	10
Northern lows Zone 1	16
Central Iowa Zone 2	
Southern Iowa Zone 3	16
Northern Missouri Zone 1	10
Western Missouri Zone 2	1000
Southern Missouri Zone 3	
Prairie Junegrass, Koeleri	
Northern Iowa Zone 1	4
Central Iowa Zone 2	
	a curtipendula (Michx.) Torr.
Northern Iowa Zone 1	16
Central Iowa Zone 2	10
Southern Iowa Zone 3	12
Northern Missouri Zone 1	6,7,10 abelically within each category on pages 1-4. The numbers
Common names are listed alph	abetically within each category on pages 1-4. The numbers d to vandors and/or growers listed on page 5.

1		Attachment #1 March 2011
No.	Grower/Vendor Address by Number and websites	Contact Number
1	Allendan Seed, 1966 175 Lane, Winterset, IA 50273 www.allendanseed.com	Phone: 515-462-1241
2	Barnert Seed Co., 1697 CR 1018, Muleshoe, TX 79347 www.barnertaedd.com	Phone 806-272-5506
3		Phone 712-744-3675
4	Ernst Dumany@fincts.com BCAP Boods PO Box 16, Mompuss MO 61770 Ernst Conservation Geod, 9006 Marcor Pike, Meadville, PA 16336	Phone: 666-462-6553
9	Ernst Conservation Seed, 9006 Marcer Pike, Meadville, PA 16335 www.srnstseed.com	Phone: 814-336-2404
G .	Wew, armitteed, com Grace Native Seed, 5790 Hwy J., Albany, MO 64402 Email grace/biftwordstream.net	Prione: 660-726-5864
7	Hamilton's Native Outpost, 16786 Brown Road, Elk Creek, MO 65454	Phone: 417-967-2190
ő.	r/okacy's Notive Scedq, 12547 Hwy T-38 B, Lynnville, IA, 50153 www.hoskeynativeseens.com	Phone: 641-594-3305
9	Kingfisher Farms, 29633 170" Ave. Long Grove, IA 52756	Phone 563-265-5406
10	Missouri Native Seed, George Seek, 32175 Hwy 2, Meadville, MO 64659 Email: george@missourinativeseed.com	Phone 660-938-4646
11	Missouri Wildflowers Nursery LLC 9814 Pleasant Hill RD Jefferson City MO	Phone 573-496-3492
12	65100 www.mowitiflowers.riel Osenbaugh Preine Seed Farm 11009 542 <sup>rd</sup> Street, Lucas, IA 50151	Phone: 641-766-6790
13	www.pra/rieseadfarms.scm Pure Air Native Sood Co., 24682 Prairie Grove Trail, Novinger, MO. 63559 www.PursAirSeed.com	Phone: 660-488-6849
14	Star Seed 101 Industrial Ave. Osborne KB: 67473 news gostarased com	Phone: 785-346-5447
15	Stock Seed Farm, 26006 Mill Rd. Muntock, NE 68407 www.stockseed.com	Phone: 402-867-3771
10	Shooting Star Native Seeds, 20740 County Road 33, PO Box 648 Spring Grove, MN 55974	Phone: 507-458-3044
17	woon shootingatarratyesset com Swenson Farms, 64500 150° St. Nevada, IA 50201 Ernsel andyskristiowa.net	Phone: 515-382-6120
	WOODY RELEASES	
20	Forrest Keeling Nursery, 68 Forrest Keeling Lane, Elisberry, MO 63343 www.formstheeling.com	Phone: 573 898-5571 1-800-356-2401
21	Lovelace Seed, 1187 Brownsmill Road, Elsberry, MO 63343 www.lovelaceseeds.com	Phone: 573-898-2103
22	Sjulin Nurseries, PO Box 205, Hamburg, IA 51640	Phone: 712-382-2411

USDA	FOUNDATION SEED A NATURAL RESOURCES CONSEI PLANT MATERIALS CER ELSBERRY, MISSOU	RVATION SERVICE NTER	
	2013		
(PMC). This need cost is per Pure Liv per PLS pristal, or Materials Center. Improvement Association	en huve beets established för föurskitton grans med prod- in för sid to commercial growers through Missouer (70 ver Seed (PLS) polls. Shipping costs lein than 5 49LS de den over 103P-S. contact un för shipping goots. A confil The bayer will be billed from MCLA in Columbia, Missou- loration must be received before seed will be shipped. Y Mutarials Specialist, by e-mail at grey kasseriffen under COMMON NAME.	op Improvement Association (MCI add\$3.00 per PLS pound, 5-100 ad firmation order will be sent from the souri. Psyment in full to Missouris for ordering information please or	(A). The 3d\$1.50 se Plant Crop stact
	NATIVE GRASSES		PLS Pour
Rountree	This Bluestem (Indroposon seconds)	Cultivar Release	S 16.50
02-70	Big Bluestem (Andropogon gerarda)	Nelword Release	5 16.50
Missouri Ecotype Northern Missouri	Big Bluestem (Andropogon gerardir)	Source Identified Release	\$ 16.50
Ozark-	Little Bluestem (Schizachyrum scoparum)	Spleeted Release	\$ 29.50
Missouri Ecotype Northern Missouri	Little Bluestem (Schtzachyvium scoporium)	Source Identified Release	\$ 29.50
Missouri Ecotype Southern Missouri	Little Bluestem (Schizachyrium scoparium)	Source Identified Release	\$ 29.50
Romey	Indiangrasa (Sorghastrum mitant)	Cultivar Release	\$ 33.50
Missouri Ecotype Northern Missouri	River Oats (Chasmanthum latefolium)	Source Identified Release	\$ 44.00
Missouri Ecotype Northern Missouri	Sideoats Grama (Boutelona curtipendula),	Source identified Release	5 20.00
Missouri Ecotype Western Missouri	Sideoats Grama (Bouteloua curtipendula).	Source identified Release	\$ 20.00
Cave-In-Rock	Switchgram (Panteum virgatum)	CultivarRelease	\$ 12.00
Missouri Ecotype Northern Missouri	Tall Dropseed (Sporobolus compositus)	Source Identified Release	\$ 24.50
Missouri Ecotype Western Missouri	Tall Dropseed (Sparobelus compositus)	Source Identified Release	\$ 24.50
Course River	Viceinia Wildrye (Elymus pregracus)	Nelected Release	\$ 18.00

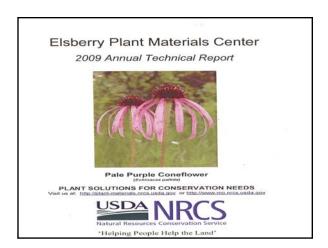
## **Access to Elsberry Plant Materials**

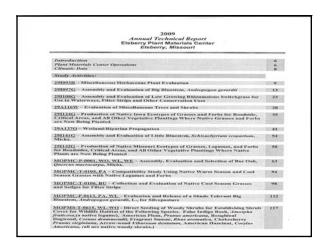
- Websites
  - http://Plant-Materials.nrcs.usda.gov

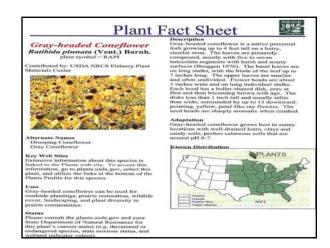
















### Technology Products for the Field

- For the web link go to:
- NRCS Missouri Home Page
  - Technical Resources
    - Technical References
      - Missouri Technical Notes
        - » Agronomy

	NRCS Natural Resources Misson
MI	ssouri Technical Notes
Charle	ntmi (15/21/2012)
Aur	anomy
	<ul> <li>Assistantini, Test. Intel. 261. Leasure, Deculation, 08422/08</li> <li>Assistantini, Test. Intel. 251. Variable, Inser. Mitrosen. Jeruszer. Assistantion, in, Coro., Uking Jo. Heid. Sensing of Leaves, or. Canopro, 09213/08</li> <li>Adaptioni, Test. Intel. 251. Mahay 1849/footbook inhibitation, in, Irlandouri, 092/08/08</li> </ul>
T	The fellening desuments require <u>decelest beader</u>
Eng	<ul> <li>Agrandowy, Tech. Rote. 32 Big. Bluestern. and Indianareas. for Bluesas. Froduction. 0.3/2011 (PPF). 1-40 400</li></ul>
T	The following document requires Accobat Baadar.
	<u>Tuchnical Hote 9</u> (PDF, 669 KB) Guidance for determining the hazard classification of small dams and working tools that may be used in arriving at the proper classification.
Too	hnology
	The following documents require Accobat_Readec-
Г	MO-1: Utilizing a Garmo GPSmas 26 for Field Data Collection in Missouri, 96/13/2005 (POF, 1-3 He)
	MO-2: Utilizing a ProXXZ Unit for Pield Data Collection in Pleasure, 04/16/2010 (PDF, 6-3 MB)
	MO-2: Utilizing a ProxYZ Unit for Field Data Cultection in Missouri, 04/16/2010 (PDF, 6.3 MB)  MD-3: LiDAR USER'S GUIDE for Archino 9.2, 04/20/2010 (PDF, 3.4 MB)

### NRCS Agronomy Technical Note -38

- Highlight
  - Seed Tags /Seed Industry Terminology
  - Find it: Missouri Technical Notes –
     Agronomy Technical Note 38
  - What is the main item you look for on a seed tag?
  - Purity and Germination to figure Pure Live Seed (PLS)

     Did the landowner apply enough seed for the acres planted

### NRCS Agronomy Tech Note -38

What is a Seed Test?

Purity X Germination =Pure Live Seed (PLS)

What is Seed Certification?

Color of Seed Tags for Third party verification
Missouri Crop Improvement Association
Insure buyer of what is being purchased.

Different products for different practices

### NRCS Agronomy Tech Note -38

### Different Types of Products (Releases) for Different Standards and Practices



Cultivar's/Varieties/ and Selections are uniform, stable and perform for a certain task's.



OZ- 70 Big Bluestem Selection for late maturity, good seedling vigor, high forage production, disease resistance

### NRCS Agronomy Tech Note -38

### Different Types of Products (Releases) for Different Standards and Practices



Source Identifiedhas no selection criteria, adapted for certain needs



Gray-headed Coneflower- ecotype collected from North Missouri

### NRCS Agronomy Tech Note -38

- Different Types of Products (Releases) for Different Standards and Practices
  - Example 643 Standard –Restoration and Management Rare and Declining Habitat for CRP Practice-CP-25
    - Requires Source ID Seed, What is Source ID Seed?
    - Source- Geographical location where the seed was collected, ie. Missouri or adjacent states.

Disagled accessarion, and aspectos. PEDE Provision Antiquia Leases must be, determined an extension of the control of the cont

Transmittal Number 468

723 - 1

NATURAL RESOURCES CONSERVATION SERVICE MISSOURI AGRONOMY SPECIFICATION

VEGETATION ESTABLISHMENT, HERBACEOUS SEEDING

**CODE 723** 

GENERAL

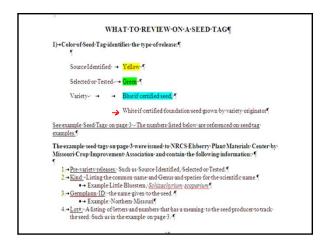
This item of work shall consist of providing the species selection, site preparation, timing and manner of seeding, and facilitating practices for the establishment of permanent herbaceous vegetation. This specification is the criteria to be applied for the following conservation practice standards:

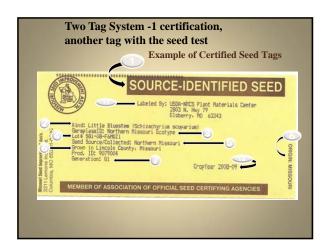
CONSERVATION COVER (327)
CRITICAL AREA PLANTING (342)
PASTURE AND HAYLAND PLANTING (512)
UPLAND WILDLIFE HABITAT MANAGEMENT (645)

The current version of Missouri SeedRate may be used to generate a seeding recommendation and to document the proper completion of the conservation practice. SeedRate creates a JS-AGRON-25 form that will be the record of planning and application for the conservation practice standards isleed above. If SeedRate is not available, simple computations will be used to calculate the seeding rate for each species.

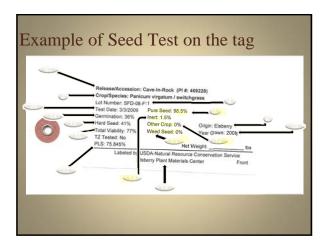
SPECIES SELECTION

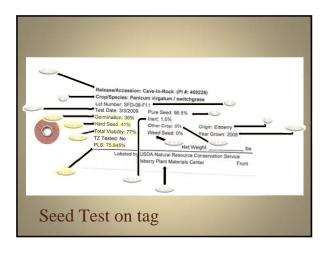
Grass Spenier	Cultivas	I Area of Use F	I Source of Collection
United Wilderson Courses	O'Ma'Ha	North Miss	Charlest Advances
Native Warm Season Grass	O'Ma'Ha	North Miss	East and Northeast Nebraska
Hie Bluestern	Hountree	Statemaide	Western Iowa
	OZ-70	Statewide	Southern Missouri, Southern Illinois,
			Northern Arkansas, and Eastern Oklaham
	Fawnee	Statewide	Fastern Kansas North Central Kansas and South Central
		111111111111111111111111111111111111111	
	Charry	Seatewide	Scortly Cannad Nationalis
Little Bluestem	Aldous	Seanewide	Cartero Kanson
	Cimariin	Steam's Missourt, namely sites only	Southwest Kansas and Oklaforma
	Camper	I North Minness	North Central Kansas and South Canada
	500000000000000000000000000000000000000		
	Ozark	Statewide	Missouri and Southern Illinois
Lastern Clamageans	PME-24	Statewide	Kansas and Oklahoma
Stadement Cirarea		North Misseuri	Kansas and Oklahoma North Central Nebraska
			Central Ohlahoma
Indiangrass	Human	Base of the	Control Oblishmens Frank Sectoral Publishme Sentificate Sittings
Instingens	Chagge	Statewide Statewide	Southern Blinois
		Statewiste	Eastern and Central Kansas and Oklahom Western Oklahoma
		North Minnesott	
Switchgross	Cava-In-Ruch	Statewide	
	Alamo	Reading tides	North Central Ohlahorma
	America.	Missoneri	SHIRT CHANGE TRANS
	Manhow		East Central Ohlahuma
	and the state of t	Philade ov Lifer	
	Parti finder Traditioner	North Missouri North Missouri	North Central and South Central Naturals Selection from Path finder
		Printed Selimonary	North Cennal Nebraska
Native Warm Season Legun	nes and Fortis		
Chinaia Bundhe Rosess	Harris Chartegelasson	Statewister Statewister	Kanas
Partrulas Pro-	Haley Lack Selection	Shadewide	Arkanaas
Pracycle Penisten hover	Kaneh	Deanewide	None and a second
Resembles and Despite hover			Riginal Frebricks, Chilaboro
Missery Tukirefull	Alexander Germplasm	Bharcwide	Blimpie
Grayhead Conellower	Surgitore	Statements	- Martine Control of the Control of
17 North Missourt is all cou-	office north of Bates, Henry, E outh Missouri is all counties in	Jenton, Morgan, Montteau	Karran J. Cole, Osage, Gasconaile, Franklin, e llefed.
each species in the di J8-AGRON-25 to calc practice criteria. Each the different conserva for calculating seed no An example of the see	esired mix that is planne- julate the amount of se- n conservation practice tion purposes. Declare- seds; mixture percentar edding rate calculations for	ed and applied to the ed needed to apply to requires a different a the desired percent ges will total 100 per	vary based on the percentage of site. Use the current form of set of the set of seed due to age for each species in the mix cent.  and Mixture Adjustment
Factors follows the for	mula:		re (%) = Seeding Rate (PLS).











### NRCS Agronomy Tech Note -38

- Example:
- Landowner is seeding switchgrass at base seeding rate in standard 4.7#PLS/acre for 10 acres.
- Landowner bring in a ticket 62# of seed Bulk?
- Did the landowner apply enough?
- Need Total of 47#PLS (4.7 #PLS/ac X10 acres)
- Purity 98.5 % X Total viability 77%=75.845%
- 62#Bulk X 75.845%=47.0 #PLS used for 10 acres
- Yes he applied 47.0#PLS/10 acres=
- 4.7 #PLS/ac. as required.

Agronomy Technical Note- MO-38 January 2010

### SUMMARY

Use the information on the seed tag and label to determine the quality of the seed you are purchasing. This will ensure that genetic identify and mechanical purity needed to help ensure a successful, weed-free, uniform seeding.

Purity and germination percentages found on the seed tag determine Pure Live Seed from which the bulk-seeding rate is calculated. The seed tag will list the weeds including common, restricted, and prohibited found in the seed lot. Remember that weeds listed as common, restricted, and prohibited vary by state and no seed can be sold if it contains prohibited weeds. Seed that is moved across state lines must meet the most restrictive state's requirements. By monitoring the weed species in the lot, you can control what weeds are seeded in a planting.

The cheapest seed is not always the most economical. By comparing the purity and germination percentage between seed lots or mixes, you can see clearly which lots or mixes will produce the most potential seedlings after planting. All seeding recommendations are given in Pure Live Seed (P.S.) rates.

Always place your order to the seed dealer as PLS seeding rate and check to make sure the dealer has mixed the seed correctly.

NRCS Natural Resources

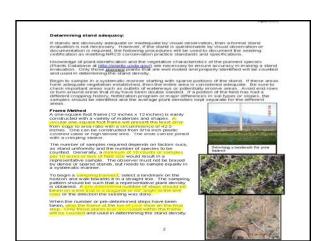
Fling Instructions. If a paper copy is to be retained, please print and file this new Agrenomy Technical Nose Notice, Index and Technical Note in the Agronomy section of the technical note binder.

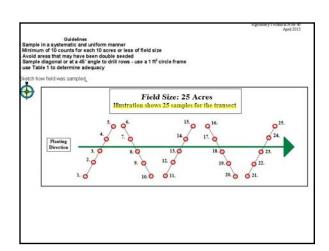
Contact. If you have questions, contact Jerry Kniser, Plant Materials Specialist, Elsberry Plant Materials Center, at 373-898-2012 or jerry Aniser/fixon and a governor Jodie Reisner, State Conservation Agranomist, Columbia, Missouri at 373-878-8940 or judie reisner/fixon and a 373-878-8940 or judie reisner/fixon and a governor fixon and a state of the st

D. P. F Love

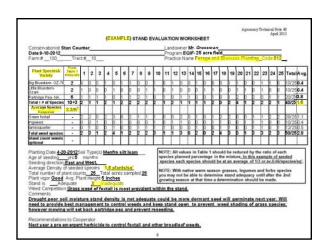
Helping People Help the Land An Equal Opportunity Frontier and Employer





Conservationist												La	ndov	mor																
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arm#		_Tr	act #	-	_	_	_	_	_	_	_	Pri	ection	Na.	me_	_	_	_	Code											
Sant Species	From Table1 Adequate	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	Tota	A		
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Hanting Date ge of seeding otal number of pla werage Densky of lant vigor land is A weed Competition Comments	yrs rt counts_ seeded spe dequate_	_mo	_0	_Tot _Avg _Avesti	Plan onab	rectiones s	onampi	led_	legui	=			si - A	amp linin ze void amp rcle se T	de inum d and de c frai abl	eas diag me ie 1	that ona to d	t ma I or leter	y ha at a	or e	beer ang	10 a	uble o dr	s or	les	d	field			



	Il values in Table 1 should		onomy Technical Note 40 April 2013
	species planned percenta		
WA	OL SEASON SPECIE THE 1 <sup>ST</sup> GROW! RM SEASON SPECIE THE 2 <sup>ND</sup> GROW! OR HERBACEOUS ST	NG SEASON S NEEDED PER S	QUARE FOOT
	Critical Areas (342)	Forage and Biomass Planting (512)	Conservation Cover
	Riparian Herbaceous Cover (390)	Field Borders	Upland Wildlife
	Filterstrip (393)	(386)	Habitat Management (645)
	Field Borders (386)		Restoration and Management Rare Declining Habitat (643) Field Borders
SPECIES	Planted within 12 months if species is greater than yours equal to species number below. Then the stand is indepute. Based on planting 00 seeds per square foot	Planted within 12 months if species is greater than bors equal to species number below. The number below. Besel on Based on planting 50 seeds per square foot	(386) Planted within 12 months if species is greater than >or= equal to species number below. Then the stand is Based on planting 45 seeds per square foot
Cool Season Legume	5		
Birdsfoot trefoil	12		
Alsike clover	10	0	
Ladino clover	10	6	
Red clover	12	8	
Kura clover Alfalfa	8	4	
	12	a	
Warm Season Legum			
Common Lespedeza	12		
		6	
	10	6	
Partridge Pea			
	10	4	

Ganada Wildrys   5   5	
Nembuly Blegrass   10   6	
Orchandgrass         8         9           Perennial Ryearass         8         5           Redflog         10         6           Reed Canarygrass         6         5           Semed Reed Canarygrass         5         3           Tall Passoc         0         9	
Percential Ryegrass   8   5   5   6   6   6   6   6   6   6   6	
Red0p   10   6   Red0p   Red Clearygrass   8   5   5   Smooth Brome   5   3   3   Tall Feature   6   6   6   6   6   6   6   6   6	
Red0p   10   6	
Reed Canarygrass   8   5   5   5   5   5   5   5   5   5	
Tall Fescue 8 5	
Timothy 10 6	
Timothy 10 6	
Werm Seeson Grasses	
Bermudagrass 1 0.6	0
Big Bluestem 3 2	
Oldworld Bluestern 8 5	
Composite Dropseed 5 4	
Eastern Gamagrass 1 00	0
Indiangrass 5 3	
Little bluestern 3 2	
Sideoats Grama 6 4	
Southern Crabgrase 4 3	
Switchgrass 4 3	
Warm Season Forbs	
Grav-headed	
Coneflower 10 6	
Pale Purple	
Coneflower 8 5	
Ox-eye False Sunflower 10 6	
Surrisher 10 6	
Foxglove	
Bearttongue 10 6	

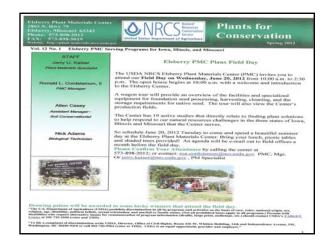
### Plant Materials for Conservation Planning

- Thank you for your attention any questions please contact me.
- Presented by
  - Jerry Kaiser Plant Materials Specialist
  - Location Elsberry Plant Materials Center
  - Phone 573-898-2012
  - jerry.kaiser@mo.usda.gov

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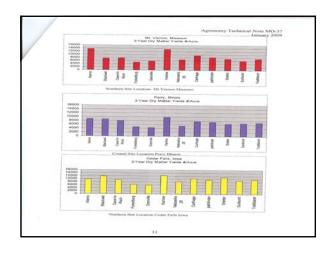
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2) Other Seed Labeling requirements are provide on a white label by the seed grower with—
the following information:

Purity is determined for percent pure-seed (#9) by adding (#'s 10-12) and subtracting from
100 percent.

9 → Percent pure-seed (
10. Percent matter (
11. Percent weed seed (
12. Percent other crop-seed (
Items 9-12 added together should equal-100 percent (
13. Noxious weed sper-pound (

→ Is listed only for noxious—species based on the number of seed sper-pound (

Germination is determined by adding items 14 and 15.¶

14.Percent germination, exclusive of hard seeds or domant seed(+)¶

15.Percent-hard seed and or domant seed if present¶

16.Equals total germination.¶

17.Percent Pure Live Seed of formula below for calculating pure live seed (PLS).¶

• PLS=(pure seed X (germination + domant hard seed) 100 ¶

18. Croppear Production¶

19. Name and address who labeled OR who sells the seed¶

20. Calendar month, date, and year the seed test was completed¶