



TREE PLANTING PLAN
Neosho River Site 17 and 18

ADDRESS:

LEGAL DESCRIPTION: S2, Sec 14-19-12 and N2, Sec 23-19-12

COUNTY: Lyon County

LANDOWNER OBJECTIVE: Stream bank stabilization along the Neosho River

TYPE OF PRACTICE: Riparian Forest Buffer

SOIL NAME & SUITABILITY GROUP: Chase silty clay loam (1), Reading silt loam (1), and Ivan silt loam (1)

METHOD OF PLANTING: Machine plant in the spring of 2011. Make sure to place the tree order in December or January to ensure that the desired species are reserved for spring planting. Late March or early April would be a good time to aim for planting.

When planting row 4 (black walnut and bur oak), group species in multiples of 25 – i.e. 25 oak, 25 walnut, 25 oak, etc.

PRESENT GROUND COVER: Crop field – recent stream bank stabilization work

SITE PREPARATION: Deep chisel the planting area this fall and allow to sit fallow throughout the winter to mellow through the freeze/thaw process. A light disking in the spring to remove any weedy vegetation that has greened-up before the tree planting date may also be necessary.

WEED CONTROL: Weed control will be critical in ensuring the success of any planting. Selective herbicides will be the most practical type of weed control for this project. Pendulum 3.3 EC, will work well to suppress the annual grassy weeds such as foxtail and panicum grass. Because it is a pre-emergent herbicide, it will need to be applied before weed seed germination. This will occur immediately after planting the first year, and can be in February or March for the next two seasons. Follow the directions listed on the label and direct the spray at the base of the trees with a flat-fan nozzle to minimize any chance of damaging the trees.

Depending on the weed competition, there are opportunities to use a post-emergent herbicide after planting (early June). Fusilade will target grassy weeds, while Transline will focus on broadleaf issues. These herbicides will need to be directed towards the base of the seedlings.

Overview of selective herbicide use:

2011 – Immediately after tree planting – apply Pendulum 3.3 EC

- Early June – apply post-emergent herbicide as needed (Fusilade for grass, Transline for broadleaf weeds)

2012 – Late Feb/Early March – apply Pendulum 3.3 EC (prior to weed seed germination)

- Early June – apply post-emergent herbicide as needed (Fusilade for grass, Transline for broadleaf weeds)

2013 – Late Feb/Early March – apply Pendulum 3.3 EC (prior to weed seed germination)

- Early June – apply post-emergent herbicide as needed (Fusilade for grass, Transline for broadleaf weeds)

If any brome grass begins to encroach into the planting site, it will be very important to not allow it to do so. Brome grass is very aggressive for moisture and nutrients and will slow the establishment and growth of the seedlings. To kill brome grass, spray with a glyphosate-type herbicide (i.e. Roundup) when the grass is actively growing - best control will be seen in the fall (October). Annual applications may need to be made at the perimeter of the planting if there is brome along the existing tree line/creek bank.

It will be important to mow between the rows when the competing vegetation reaches a 6"-8" height. This can be performed on a monthly basis during the growing season. A final mowing in the fall will help to eliminate any cover for rodents that may cause damages to the trees. Mowing should be performed until the trees are well established.

FENCING REQUIREMENTS: None unless livestock will have access to the planting. If that is the case then fencing will be required for livestock exclusion.

MISCELLANEOUS: Replace all losses during the first three growing seasons. Protect the planting from wildfire and livestock. Inspect the planting frequently for rodent, insect, and disease problems.

To help protect from deer rubbing and browse, it will be necessary to use plastic tree shelters. The shelters will be installed immediately after planting and will be left on the trees until they are nearly as large in diameter as the shelters, at which point they will be cut off. Due to the high cost of the shelters, it will not be practical to install them on every tree. Instead, position a shelter on every 4th tree in the rows that contain bur oak and/or black walnut (deer do not seem to browse the sycamore trees as heavily).

Tree shelters will need to be at least 48" tall (Miracle Tubes by TreePro are recommended) and wooden stakes that are 5-6 ft tall will be required to hold the shelters upright. Treated pine, or oak, stakes tend to hold up better.

FIRE PROTECTION: Keep fire out of the tree planting area.

ESTIMATED COST OF MATERIALS:

2498 bareroot seedlings @ \$0.68/seedling: \$1698.64
and

286 – 4 ft tall tree shelters @ \$4.20/shelter: \$1201.20

SUMMARY OF SPECIES NEEDED:

Sycamore: 710

Black walnut: 562

Bur oak: 582

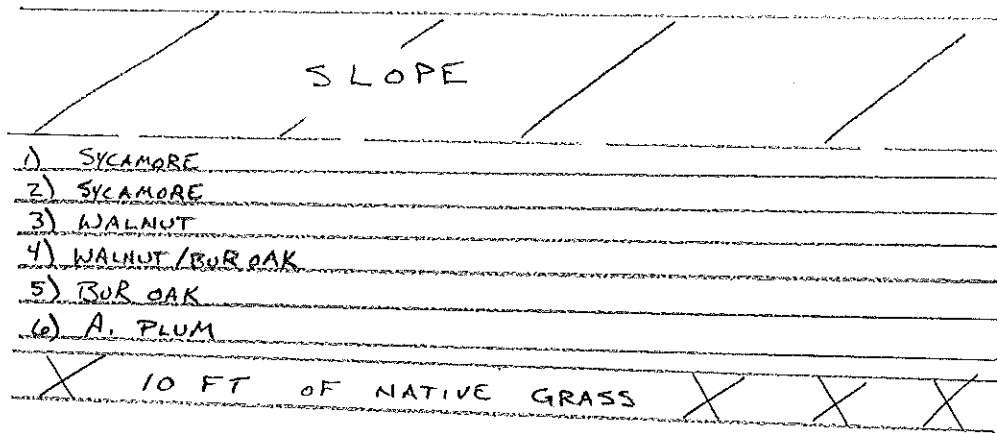
American plum: 644

TOTAL PLANTING AREA: 4.6 acres

PLAN PREPARED BY: Thad Rhodes, District Forester,
3705 Miller Parkway, Suite B; Manhattan, KS 66503
(785) 776-5182, ext. 1517

Site 17/18

NEOSHO RIVER



* NOT TO SCALE

Note: Row one is on the river side of the planting.

Row #	Species	Spacing in Row	Spacing Between Rows	Length of Row	Number of Plants
1	Sycamore	8 ft	10 ft	2800 ft	350
2	Sycamore	8 ft	10 ft	2884 ft	360
3	Black walnut	8 ft	10 ft	2968 ft	371
4	Black walnut/bur oak	8 ft	10 ft	3052 ft	191 walnut 190 bur oak
5	Bur oak	8 ft	10 ft	3136 ft	392
6	American plum	5 ft		3220 ft	644
				Total	2498

10 ft strip of native grass on outside of planting
(between trees/shrubs and crop field)

Soil Map—Lyon County, Kansas
(Site 17 and 18)

96° 3' 53"

96° 2' 40"

38° 23' 49"

38° 23' 47"



38° 23' 10"

38° 23' 8"

96° 3' 55"

96° 2' 42"

Map Scale: 1:8,500 if printed on A size (8.5" x 11") sheet



Name: Bruce Pearson Ident. No: Site 17 and 18

Legal Desc: S2, Sec 14-19-12 and N2, Sec 23-19-12 Program: CCRP - CP-22

County: Lyon Co. Soil Map Unit: 4020, 7170 Tree/Shrub Suitability Group: 1

1. Planting Purpose: Riparian Forest Buffer Meets Practice Code: 391
(i.e., windbreak/shelterbelt, riparian forest, living snowfence)

2. Site Preparation: Tillage Hand Scalp _____ Chemical _____
Chemical Planned _____ Application Rate _____
Planned Site Prep Date Fall 2010 Applied Site Prep Date _____

Notes: Tree/shrub planting area will need to be chiseled prior to ground freezing. A light disking may be necessary prior to planting in the spring.

3. Planting Methods: Tree Planter Hand Plant _____ Broadcast Seed _____ Drill Seeder _____
Planned Planting Date _____ 31-Mar-11 Applied Planting Date _____

Notes: 48" tree shelters will need to be installed on every 4th tree in the oak and/or walnut rows to minimize the effect of deer damage. Miracle Tube shelters by TreePro are recommended and 5-6 ft treated pine or oak stakes will need to be used.

4. Post Plant Weed Control: Mechanical Chemical Fabric _____
Chemical Planned Pendulum 3.3 EC and Fusilade Application Rate 3 qts/A for Pendulum; see label for Fusilade
Fabric Planned (ft) _____ Fabric Applied (ft) _____
Planned Weed Control Date 1st 3 years minimum Applied Weed Control Date _____

Notes: Apply Pendulum after planting and before weed germination 2nd and 3rd year. Post-emergent will need to be applied in early June. Mow btwn rows often enough to keep them defined (at least once/month during growing season and in the fall). See plan.

5. Acres Planted (Includes width of maintenance area adjacent to planting)
Acres Planned 4.6 acres Acres Applied _____

Natural Resources Conservation Service (NRCS) Representative or Technical Service Provider

Layout by _____ Date _____
Designed by [Signature] Date 11/30/10
Checked by _____ Date _____
Approved by _____ Date _____

Producer's Statement

The design of this practice has been discussed with me, and I concur with the design.
No changes are allowed without the approval of the NRCS Representative or the Technical Service Provider

Signature _____ Date _____

Attach a copy of an ArcGIS generated conservation plan map denoting field boundary, field number, land use, acres, and north arrow as per National Planning Procedures Handbook, Part 600.31.

Name Site 17 and 18 _____

Use of Seedlings

Row No.	Species	Kind of Stock**	Length of Row (ft.)	Within Row Spacing (ft.)		Distance Between This Row and the Next (ft.)		Number of Seedlings Per Row	
				Planned	Actual	Planned	Actual	Planned	Actual
1*	Sycamore	BR	2800	8		10		350	
2	Sycamore	BR	2884	8		10		360	
3	Black walnut	BR	2968	8		10		371	
4	Black walnut and bur oak	BR	3052	8		10		381	
5	Bur oak	BR	3136	8		10		392	
6	American plum	BR	3220	5				644	
7	10 ft strip of native grass								
8									
9									
10									
11									
12									
			18060					2498	0

** BR = Bare Root; CO = Containerized; CU = Cutting

Total Number of Seedlings by Species

Species	Total Number by	
	Planned	Actual
Sycamore	710	
Black walnut	562	
Bur oak	582	
American plum	644	

Notes: See attached planting plan for details.
Row 4 - group in multiples of 25 by species, i.e. 25 oak, 25 walnut, 25 oak, etc.

286 - 4ft tall tree shelters needed to protect oak and walnut seedlings.

Direct Seeding

Row No.	Species	Acres to be Planted	Planned		Applied
			Pounds of Seed/Acre	Total Pounds of Seed	Total Pounds of Seed
1*				0.0	
2				0.0	
3				0.0	
4				0.0	
5				0.0	
6				0.0	
7				0.0	
9				0.0	
			0.0	0.0	0.0

* Row No. 1 is always on the north or west side for windbreak/shelterbelt plantings and always nearest streamside for riparian forest buffer plantings. If direct seed broadcasting is the method used for establishment, disregard the Row No. column.

Certification

This applied practice meets Kansas standards and specifications.

This practice has been applied as designed.

NRCS Representative or Technical Service Provider Date

Producer Date

Name: Bruce Pearson - Site 17 and 18 Date: 11-30-10 Ident No.: _____

Legal Desc.: S2, Sec 14-19-12; N2, Sec 23-19-12 County: Lyon Co.

Assessment Completed WIN-PST RUSLE WEQ

Field No.: _____ Acres: 4.6 Soils: 4020, 7170, 4052
(See guide, Page 2) (See guide, Page 2)

Land use/crop (See guide, Page 2)	Target pest name	Treatment threshold
Tree planting	grassy weeds - foxtail, panicum grass	Grass competition should be kept to a minimum due to its competitiveness for moisture and nutrients.

Pest control method: chemical
(See guide, Page 2)

Application techniques

Product: Pendulum 3.3 EC
Rates: 3 qts/A
Application method: banding along base of seedlings
Timing: prior to weed seed germination
Form: _____

Mitigation techniques
*Practice/extent
(See guide, Page 2)

Application along planting rows with herbicide directed at base of seedlings. A flat-fan nozzle will aid in application. The first application will be made following tree planting and prior to weed seed germination, while a second application will be made in the spring of the second year (prior to weed seed germination).

Field No.: _____ Acres: 4.6 Soils: 4020, 7170, 4052
(See guide, Page 2) (See guide, Page 2)

Land use/crop (See guide, Page 2)	Target pest name	Treatment threshold
Tree planting	weedy competition	Weed competition should be kept to a minimum within the tree rows - between rows will be controlled by mowing.

Pest control method: chemical
(See guide, Page 2)

Application techniques

Product: Fusilade and/or Transline
Rates: see label
Application method: banding along base of seedling rows
Timing: early June
Form: _____

Mitigation techniques
*Practice/extent
(See guide, Page 2)

Fusilade grassy weeds; Transline will control broadleaf weeds. Application should be made in early June along the planting rows with herbicides directed at the base of the seedlings. A flat-fan nozzle will aid in application.

Field No.: _____ Acres: 4.6 Soils: 4020, 7170, 4052
(See guide, Page 2) (See guide, Page 2)

Land use/crop (See guide, Page 2)	Target pest name	Treatment threshold
Tree planting	weed competition	Mow often enough to keep planting rows defined

Pest control method: mechanical
(See guide, Page 2)

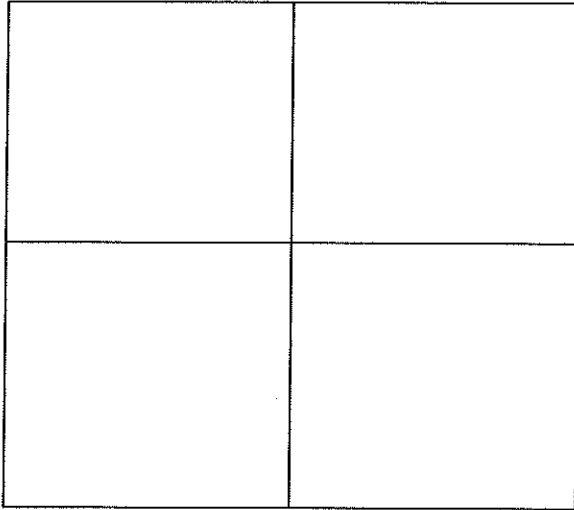
Application techniques

Product: brush hog
Rates: _____
Application method: _____
Timing: _____
Form: _____

Mitigation techniques
*Practice/extent
(See guide, Page 2)

Mow at least once per month during the growing season and a final mowing in the fall to remove weedy cover for rodents. Mowing is necessary for the first 3 years of the planting and should be performed until the trees are well established.

Location map: Import ArcView image, reference conservation plan map, or provide a sketch denoting field boundary, field number, land use, acres, and scale used.



Scale: _____

Certification

This applied practice meets Kansas standards and specifications.

Technical Service Provider

Date

This practice has been applied as designed.

Producer

Date

Pest Management – 595 – Form Guide

Field number: Record the field number of the planning unit. If the planning unit is an entire field identified on the conservation plan map, use this identification. If the planning unit is a portion or subfield of an entire field, clearly identify the subfield on the conservation plan map.

Land use/crop: Record the crop sequence or rotation for at least five years. Start with last year's crop and project the crop rotation for the next four years. Circle the current crop or show in bold type. In non-cropland areas, identify producer management decision which has contributed the most to pest development.

Treatment threshold: Record the method used to determine the treatment threshold. Use field scouting and treatment thresholds to determine if pest controls should be used. Some examples would be number of pests per acre, number of pests per feet of row length, number of pests per plant, and stem count decision.

Pest control method: Record the selected method of pest control. Some examples would be cultural, biological, mechanical, host resistance, and chemical.

Mitigation techniques: Record mitigation practices for minimizing surface and/or groundwater contamination.

*Mitigation practices are required when WIN-PST hazard is intermediate, high, or extremely high, or when soil erosion prediction is greater than "T."

Technical Service Provider

Layout by _____ Date 11/30/10

Designed by _____ Date

Checked by _____ Date

Approved by _____ Date

Producer's Statement

The design of this practice has been discussed with me, and I concur with the design. **No substitutions are allowed without the approval of the technical service provider.**

Signature

Date