

USDA
SOIL CONSERVATION SERVICE
LEXINGTON, KENTUCKY
AND
UNIVERSITY OF KENTUCKY AGRICULTURAL EXPERIMENT STATION
LEXINGTON, KENTUCKY

Notice of Release of 'Bankers' Willow

The United States Department of Agriculture, Soil Conservation Service, and University of Kentucky Agricultural Experiment Station announce the release of 'Bankers' dwarf willow, Salix cotteti Korner. It was selected at the Soil Conservation Service Plant Materials Center, Quicksand, Kentucky.

'Bankers' was received by the Plant Materials Center in April 1967 from the Soil Conservation Service National Plant Materials Center, Beltsville, Maryland as BN-8360. It was designated at Quicksand as KY-663 and later assigned experimental number PI-42485. It was included in an evaluation block with seventy-four other willows in 1968. In 1972, it was selected for additional evaluations. At that time a vegetative increase block was established and has served as a source of all propagating material since that date.

'Bankers' is multi-stemmed and grows to a height of approximately six feet. Stems are small, rarely exceeding 1/2 inch in diameter, and are usually prostrate or semi-prostrate. Lateral spreading is due to layering of small stems which touch the ground. The growth characteristics of 'Bankers' make it useful for streambank stabilization on streams where the velocity does not exceed 6-8 feet per second. Its low growth habit and small stems, which bend with the moving water, increase its versatility for streambank use. It is readily propagated from cuttings that can be planted onto the streambank as rooted cuttings or as unrooted cuttings. Its growth rate is rapid.

Field tests show 'Bankers' to be adapted from Pennsylvania south to Alabama and in Oregon and Washington west of the Cascade Range.

Foundation quality plant materials will be maintained by the Soil Conservation Service Plant Materials Center, Quicksand, Kentucky. Rooted cuttings will be made available to commercial producers for establishing their production blocks in the Spring of 1983.

Shannon S. Shiflet

Director, Ecological Science Division
U.S. Department of Agriculture
Soil Conservation Service
Washington, DC 20013

5/3/83
Date

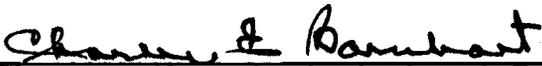
NOTICE OF RELEASE

2



State Conservationist
U.S. Department of Agriculture
Soil Conservation Service
Lexington, Kentucky

4/4/83
Date



Director, Kentucky Agricultural Experiment
Station
University of Kentucky
Lexington, Kentucky

3/30/83
Date

UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
LEXINGTON, KENTUCKY

DOCUMENTATION FOR THE RELEASE OF BANKERS WILLOW

This multi-stemmed dwarf willow is an introduced hybrid from the Alpine region of Europe. Fifteen unrooted cuttings were received at the Quicksand Kentucky Plant Materials Center in April 1967, from the National Plant Materials Center at Beltsville, Maryland. They were planted at the Quicksand PMC along the North Fork of Kentucky River for initial evaluation with 74 other willow species in April 1968. (See Table #1) It was accessioned BN-14871 at Beltsville, MD, KY-663 and later P.I. 434285 at Quicksand.

Description

'Bankers' is a hybrid cross between Salix retusa L. x Salix myrsinifolia (nigricans Sm.) = Salix cotteti Korner. It produces only male flowers, therefore no spreading occurs by seed. It is multi-stemmed and grows to a natural height of 6 ft. and a stem diameter rarely exceeding 1/2 inch. Stems are usually prostrate; leaves elliptic to oblong, 1-2 inches long, obtuse or acute serrulate, pubescent when young; catkins are short-cylindric; scales are darker toward the apex and pubescent. Lateral spread is due to layering of small stems which touch the ground. First year growth is rapid and propagation is by root suckering or cuttings.

Procedures Used in Development

The initial evaluations were conducted for the purpose of selecting a small willow that would produce a rapid stabilizing cover on small streams. Principal evaluation criteria were plants that did not exceed six-feet

produced relatively small and flexible stems, and had exceptional layering ability. 'Bankers' was selected in 1972 from initial evaluations representing the strain that most closely met the evaluation criteria. See Tables 2 and 3.

Uses and Performance

The growth characteristics of 'Bankers' make **it** useful for streambank stabilization on relatively small streams where erosion is a problem. Due to low growth and small stem diameter, the plant bends with the velocity of the water, in other words lying down as the water passes over **it**. Because of this, debris is less likely to stay on the plants and reduce the likelihood that the debris will dislodge the plants **from** the bank. 'Bankers' dwarf willow is primarily intended for use on streams where velocity does not exceed 6-8 cubic feet per second.

Tests conducted at the Plant Materials Center shows that after two years growth, rooted cuttings **of 'Bankers'** willow produced six more stems per plant than the unrooted plants. Unrooted stems made six inches more stem length growth than the rooted plants. **Stems of the rooted cuttings had two** more layers per plant than the unrooted cuttings. Based on photographic tests, the amount of ground cover produced by rooted and unrooted plants, planted on 18 inch centers, were about equal after two years growth. The amount of ground cover produced was between eighty and ninety percent. See Table 5.

Adaptation

Growth is best on wet sites subject to periodic flooding and overflow. The plants compete well with grass and weed species that are less than two feet tall. This permits the use of herbaceous species for temporary stabilization during the early development stages of the willow.

'Bankers' was first field tested in Butler County, Kentucky in 1973. Since that date, 72 plantings have been made along streams, channels, and lake shore sites in Kentucky, Maryland, Massachusetts, North Carolina, Ohio, Tennessee, Pennsylvania, Vermont, Virginia, West Virginia, and in Oregon and Washington. These plantings show **it** to be climatically adapted over the entire area. See Table 4. The attached map shows **its known** area of adaptation.

Establishment

'Bankers' can be established by using rooted or unrooted cuttings. The field plantings mentioned above have been established using both procedures. Of coarse textured sites, such as gravelly loams, rooted cuttings have been superior to unrooted cuttings. However, on sites where the soils are finer textured, such as silt loams or sandy loams and moisture is available during the rooting period, unrooted cuttings have performed as satisfactorily as rooted cuttings. Bankers should receive at least 50% of **normal** direct sunlight available at the site.

Recommended Methods of Distribution and Commercial Production of Bankers Willow

To accomplish rapid commercial production of 'Bankers' willow, the Quicksand Plant Materials Center will make available to interested commercial growers, rooted cuttings in the spring of 1983. On an average 200 plants will be made available to each grower. This figure may be adjusted based on individual requests.

Growers are encouraged to use the procedure developed for propagating 'Bankers' willow.

Varietal Maintenance

The Quicksand Plant Materials Center will maintain a block of 'Bankers' willow for providing cuttings to nurserymen as the need arises. The block will be managed in such a way to prohibit any risk of contamination by other willow species.

TABLE #4 States and Major Land Resource Areas (MLRA) Where 'Bankers' Have Performed Satisfactory.

<-----MLRA----->

KY	120, 121, 122, 125
TN	122, 123, 133, 134, 125
OHIO	99, 100, 111, 114, 126
MASS	144, 145
N.C.	153B, 130, 136
PA	126, 147
VA	136, 148
VT	143

**TABLE #5 Cottetii Willow Project at Quicksand Plant Materials Center
Planted 1980**

After Two Years

<u>Routed Cuttings</u>	Rep	No.. stem	Length of Stem	Stem Rooted
	I	21	68 inches	4
	II	17	72 inches	2
	III	17	72 inches	3
	IV	12	70 inches	3
		<u>67</u>	<u>282 inches</u>	<u>12</u>
	Av.	17	Av. = 71 inches	3.0
<u>Unrooted Cuttings</u>	I	16	77 inches	2
	II	5	78 inches	0
	III	13	76 inches	0
	IV	11	76 inches	1
		<u>45</u>	<u>307 inches</u>	<u>3</u>
	Av.	11.0	Av. = 77 inches	.75 = 1.0

Based on four replication:

Shaded area shows the known area of adaptation of 'Bankers' dwarf willow.

U. S. DEPARTMENT OF AGRICULTURE

SOIL CONSERVATION SERVICE

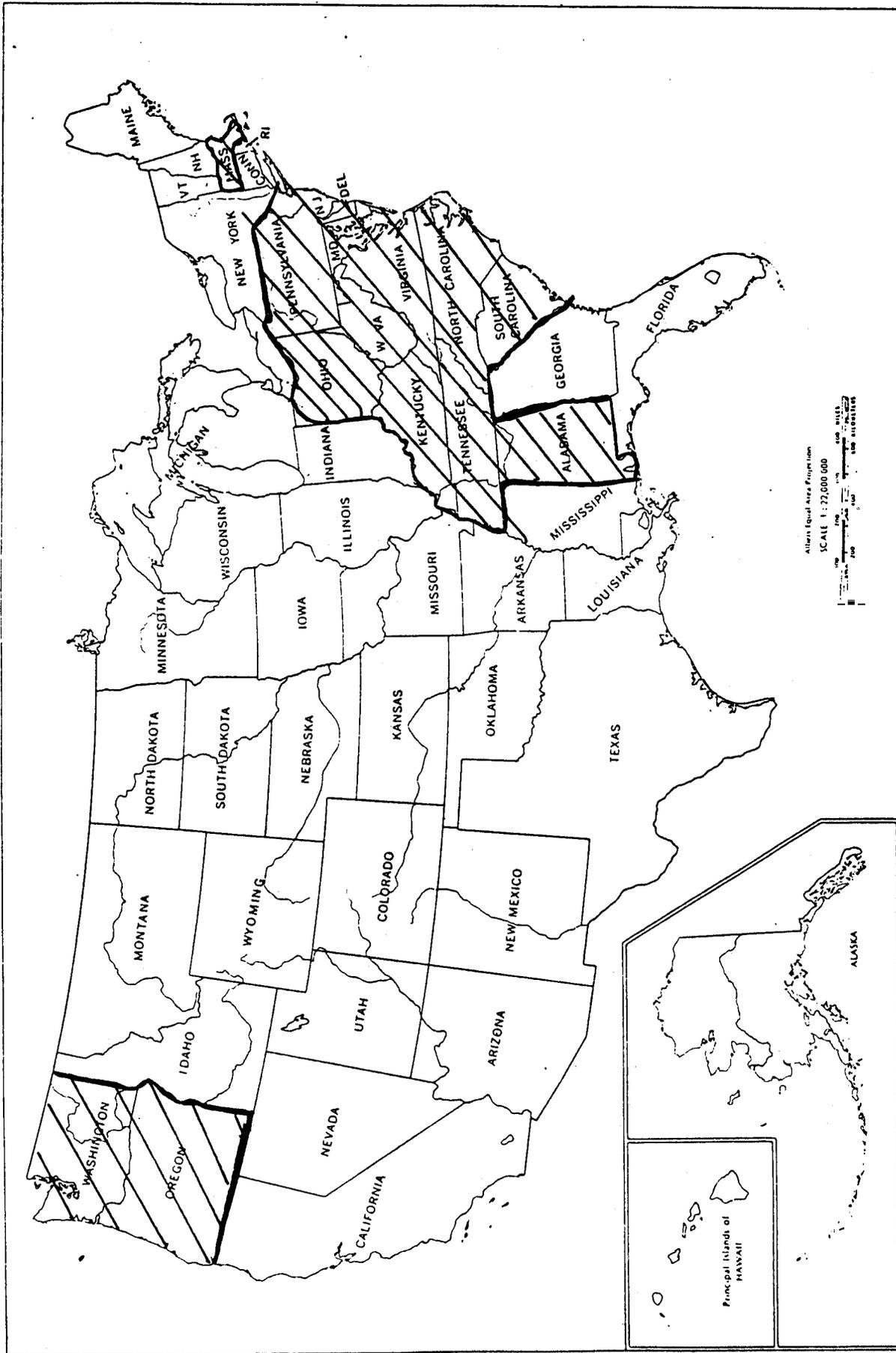


TABLE #1

APPENDIX D
1968 OBSERVATIONAL PLANTINGS - WILLOWS FROM ROOT CUTTINGS

All transplanted from cutting bed to observational area 3-11-68 to 3-26-68

NAME <u>SALIX</u>	KY <u>NO</u>	COMMON NAME	OTHER <u>IDENTITY</u>	1		2		3		4	5
				<u>NP</u>	<u>NS</u>	<u>GH</u>		<u>V</u>	<u>HI</u>		
acutifolia	648	sharp leaf	BN- 3602	5	5	S	SE	B	E	53	
syrticola	649		BN- 4862	5	5	S	E	B	E	60	
americana androgyna	650		BN- 4863	5	5	S	E	B	G	41	
bicolor	651	tealeaf	BN- 4864	5	5	S	SE	B	E	72	
candida	652	sage	BN- 3603	5	5	S	E	B	F	30	
candida	653	sage	BN- 3697	5	5	S	E	B	F	24	
canescens	654		BN- 4865	5	5	S	SE	B	E	48	
chrystostela	655		BN- 4866	5	5	S	SE	B	F	30	
cinerea	656	gray	BN- 2363	5	5	S	SE	B	G	41	
alba	657	white	BN- 3692	5	5	S	E	B	P	30	
cinerea	658	gray	BN- 4867	5	5	S	SE	B	F	30	
cinerea X caprea	659		BN- 4868	5	5	S	SE	B	F	30	
cordata discolor	660	pussy w.	BN- 4869	5	4	S	E	B	P	24	
purpurea	661	purple osier	BN- 3690	5	5	S	SE	B	F	24	
cotinifolia	662		BN- 4870	5	5	S	E	B	F	30	
cottetii	663	Cottetii	BN- 4871	5	5	S	SE	B	G	48	
dasyclados	664	woolly twig	BN- 3685	5	5	S	SE	B	F	36	
cinerea	665	gray	BN- 3688	5	5	S	E	B	G	48	
fragilis bullata	666	globs	BN- 3682	5	5	S	E	B	P	24	
gilgiana	667		BN- 3604	5	5	S	E	B	G	60	
purpurea	668	purple osier	BN- 3680	5	5	S	E	B	G	60	
rigida	669	firm	BN- 3659	5	5	S	SE	B	F	36	
rigida	670		BN- 3660	5	5	S	SE	B	G	42	
glaucophylloides	671		BN- 3666	5	5	S	SE	B	F	30	
glaucophylloides v. glaucophylla	672		BN- 3670	5	5	S	E	B	F	42	
glaucophylloides v. glaucophylla	673		BN-13672	5	5	S	E	B	F	42	
glaucophylloides v. glaucophylla	674		BN-13673	5	2	S	E	B	F	36	

APPENDIX D 1968 OBSERVATIONAL PLANTINGS - WILLOWS FROM ROOT CUTTINGS
 All transplanted from cutting bed to observational area 3-11-68 to 3-26-68

NAME	KY NO.	COMMON NAME	OTHER IDENTITY	1	2	3	4	5
				NP	NW	GH	V	HI
purpurea	675	purple oiser	BN-13696	5	5	S SE B	G	54
gracilis textoris	676		BN-13662	5	5	S SE B	E	54
hastata	677		BN-13679	5	5	M SE B	E	48
mollissima	678		BN-13691	5	5	S SE B	F	36
hypoleuca	679	underblue	BN-14872	5	5	S SE B	F	30
humilis	680	prairie	BN-12081	5	5	S SE B	G	36
interior	614	sandbar	BN-13671	5	5	S E B	G	48
irrorata	682	bluestem	BN-13605	5	5	S E R	F	30
irrorata	683	bluestem	BN-13684	5	4	S E B	F	42
lanceolata	684	wavyleaf	BN-14875	5	5	S SE B	F	36
medemi i	685	armenia	BN-13663	5	5	S E B	F	36
medemi i	686	armenia	BN-14876	5	5	S SE B	P	24
multinervis	687		BN-13559	5	5	S SE B	F	24
muscina	688	basket	BN-14877	5	5	S E B	G	54
muscina X caprea	689		BN-14878	5	5	S E B	G	48
oxica	690	oxus	BN-13667	5	5	S E B	G	42
phyllicifolia	691	tealeaf	BN-14881	5	5	M E B	E	96
pontederama	692		BN-14882	5	5	S E B	F	36
purpurea	693		BN-13687	5	5	S E B	G	54
purpurea	694	purple oiser	BN-12358	5	5	S E B	G	60
purpurea gracilis	695		BN-13675	5	5	M E B	P	18
purpurea	696	purple oiser	BN-13677	5	4	S SE B	P	24
purpurea pendula	697	weeping	BN-13695	5	5	S SE B	P	30
purpurea sericea	698		BN-13560	5	5	S SE B	F	30
purpurea	699	purple oiser	BN-13669	5	5	S E B	E	84
purpurea v. stipularis	700		BN-14883	5	5	S E B	F	30
repens nitida	701		BN-13668	5	5	S SE B	P	24
repens	702		BN-13689	3	1	S E B	P	6
repens v. rosmarinifolia	703		BN-13653	5	5	S E B	G	48
rubra	704	red	BN-13665	5	5	S E B	F	30

APPENDIX D 1968 OBSERVATIONAL PLANTINGS - WILLOWS FROM ROOT CUTTINGS

All transplanted from cutting bed to observational area 3-11-68 to ~~3-26-68~~

<u>NAME</u>	<u>KY NO.</u>	<u>COMMON NAME</u>	<u>OTHER IDENTIN</u>	1	2	3	4	5
				<u>NP</u>	<u>NW</u>	<u>GH</u>	<u>V</u>	<u>HI</u>
schraderiana	705		BN-14884	5	5	S SE B	P	12
semipalatinskensis	706		BN-14886	5	5	S SE B	P	12
seringeana	707		BN-13686	5	5	S E B	G	42
seringeana	708		BN-14887	5	5	S E B	G	42
sesquiteria	709		BN-13561	5	5	S SE B	G	24
siuzewii	710		BN-14888	5	5	S E B	E	60
smithiana	711	Smith	BN-14889	5	5	S SE B	F	30
smithiana	712	Smith	BN-13693	5	5	S E B	P	30
splendens	713		BN-14890	5	5	S E B	F	30
syrlicola	714	furry	BN-13658	5	5	S E B	F	48
syrlicola	715	furry	BN-13664	5	4	S E B	F	42
tetrapla	716	tea	BN-14891	5	5	S E B	G	48
tomini	717		BN-13681	5	5	S SE B	F	30
repens	718	creeping	BN-13694	5	5	M SE B	F	30
viminalis	719	basket	BN-13683	5	5	S E B	F	30
zackarowii	720		RN-14892	5	5	S SE B	P	18
wimmeriana	721	wimmer	BN-12360	5	5	S E P	G	54
cinerea	722	gray	BN-13562	5	5	S E P	F	30

LEGEND FOR APPENDIX D

COL.

1. Number Planted (NP)

Number

2. Number Survived (NS)

Number

3. Growth Habit (GH)

S-Single Stem, M-Multiple Stems,
E-Erect, SE-Sub-Erect, SP-Spreading, P-Prostrate,
T-Thickett-Forming, S-Suckering, L-Layering,
ST-Stooling, B-Branching

4. Vigor (V)

E-Excellent, G-Good, F-Fair, P-Poor

5. Height in Inches (HI)

Number

APPENDIX G 1972 - WOODY PLANTS - WILLOWS

1 9 7 2

NAME/NUMBER	ORIGIN	LOCATION			SV	V	H	SP	NS	/	SD	WI	DI	WB	SB
		BLK	ROW	POS											
<u>seringeana</u>															
KY-708	BN	G	19	20	100	3	120	48	5	1.8	1	3	5	5	
KY-707	BN		19	22	100	3	144	50	6	2.0	1	1	5	7	
<u>siuzewi i</u>															
KY-710	BN		19	8	100	1	180	168	6	3.0	1	1	7	9	
KY-712 <u>smithiana</u>	BN		18	23	100	5	108	24	4	0.8	1	1	9	9	
KY-711 <u>smithiana</u>	BN		19	1	80	3	122	84	3	2.0	1	1	7	7	
<u>splendens</u>															
KY-713	BN		18	25	80	5	70	30	12	0.5	1	1	7	7	
<u>sesquitertia</u>															
KY-709	BN		17	12	100	-	70	66	10	1.0	1	1	9	3	
<u>syrtilola</u>															
KY-714	BN		17	14	100	5	90	30	2	1.0	1	1	9	7	
KY-715	BN		17	15	40	5	96	24	1	1.0	1	1	9	7	
KY-649	BN		17	16	100	3	108	36	3	0.9	1	1	9	9	
<u>tetrapla</u>															
KY-716	BN		17	8	100	3	96	54	7	1.0	1	1	7	5	
<u>tomini i</u>															
KY-717	BN		19	24	40	7	48	60	-	-	1	1	9	-	
<u>wimmeriana</u>															
K -	BN		17	10	100	3	120	56	6	1.1	1	1	3	7	
<u>viminal is</u>															
K - 9	BN		19	6	100	3	102	36	12	0.6	1	1	7	3	
<u>zacharowi</u>															
KY-720	BN		19	12	20	7	42	12	2	-	1	1	9	9	

APPENDIX G 1972 - WOODY PLANTS - WILLOWS

1 9 7 2

NAME/NUMBER	ORIGIN	LOCATION			SV	V	H	SP	NS / SD	WI	DI	WB	SB	
		BLK	ROW	POS										
<u>gilgiana</u> KY-667	BN	G	17	21	100	-	144	96	8	2.5	1	1	7	5
<u>glaucophylloides</u> KY-671	BN		18	12	100	3	108	80	12	0.9	1	1	-	-
KY-672	BN			11	100	3	84	28	1	0.5	1	1	-	-
KY-673	BN			17	100	3	72	100	50	0.5	1	1	-	-
KY-674	BN			15	40	-	a4	72	10	0.8	1	1	-	-
<u>gracilis</u> KY-676	BN		19	2	100	3	122	84	8	1.0	1	1	-	-
<u>hastata</u> KY-677	BN		17	6	100	1	84	108	33	0.5	1	1	-	-
<u>humilis</u> KY-680	BN		19	4	100	3	122	144	7	1.2	1	1	-	-
<u>hypoleuca</u> KY-679	BN		18	7	100	5	96	72	5	0.8	1	1	-	-
<u>interior</u> KY-614	BN		19	3	100	3	144	42	5	1.9	1	1	-	-
<u>irrorata</u> KY-682	BN		17	23	100	5	72	36	10	0.5	1	1	-	-
KY-683	BN		17	24	20	5	72	24	6	0.5	1	1	-	-
<u>lanceolata</u> KY-684	BN		19	19	100	3	132	48	6	1.2	1	1	-	-
<u>medemi</u> KY-685	BN		18	8	80	3	132	30	2	1.2	1	1	-	-
KY-686	BN		18	9	60	5	120	25	2	1.5	1	1	-	-
<u>mollissima</u> KY-687	BN		19	21	100	5	143	42	10	1.2	1	3	-	-
<u>multinervis</u> KY-688	BN		18	21	60	5	60	54	8	0.5	1	1	-	-
<u>muscina</u> KY-688	BN		19	7	100	-	132	40	12	1.8	1	7	-	-
KY-689	BN		19	17	60	3	132	36	8	1.0	1	1	-	-

LEGEND FOR APPENDIX G

TABLES NO. 2 & 3

COL.

1	Survival Expressed as %	(SV)	Number
2	Vigor	(V)	1-Excellent, 3-Good, 5-Fair, 7-Poor, 9-Failure, 10-Out
3	Height of Tree in Inches	(H)	Number
4	Spread of Crown in Inches	(SP)	Number
5	Number of Stems Counted 12 Inches Above Soil Line	(NS)	Number
6	Average Stem Diameter at a Height of 12 Inches Above Soil Line	(SD)	Number
7	Winter Injury	(WI)	1-(0-20%), 3-(20-40%), 5-(40-60%), 7-(60-80%), 9-(80-100%)
8	Disease Injury	(DI)	1-(0-20%), 3-(20-40%), 5-(40-60%), 7-(60-80%), 9-(80-100%)
9	Windbreak	(WB)	Number
10	Streambank	(SB)	Number

TABLE #3

APPENDIX G
WOODY PLANTS - WILLOWS

NAME/NUMBER	ORIGIN	LOCATION		1974										
		BLK	ROW	1 SV	2 V	3 H	4 SP	5 NS	6 / SD	7 WI	8 DI	9 WB	10 SB	
<u>SALIX</u> <u>americana</u> K-650	ON	G	19	100	1	264	228	6	1/2	-4	1	1	3	9
<u>chrystostela</u> KY-655	BN	G	19	100	1	384	192	2	4	-6	1	1	2	9
<u>cinerea</u> KY-658	BN	G	18	100	5	168	144	4	1	-2	1	1	7	3
<u>cottetii</u> KY-663	BN	G	17	100	3	86	90	8	1/8	-1/2	1	1	7	1
<u>glaucophylloides</u> KY-671	BN	G	18	60	3	168	120	6	1	-2	1	1	5	1
KY-673	BN	G	18	100	5	114	102	11	1/2	-2	1	1	7	1
<u>humilis</u> KY-680	BN	G	19	100	3	252	156	6	1	-2-1/2	1	1	7	5
<u>interior</u> KY-614	BN	G	19	100	3	234	144	3	1-1/2-3		1	1	5	7
<u>multinervis</u> KY-687	BN	G	18	60	5	60	60	2	1	-1-1/2	1	1	9	7
<u>phylicifolia</u> KY-691	BN	G	17	100	3	200	100	10	112	-3	1	1	3	5
<u>pontederana</u> KY-692	BN	G	17	100	3	240	132	2	2	-4	1	1	3	5
KY-1026	NY	G	23B	100	5	228	168	-	-	-	-	-	-	-
<u>purpurea</u> KY-661	BN	G	18	80	3	168	96	6	1/2	-1-1/2	1	1	5	3
KY-675	BN	G	18	100	3	198	96	8	3/4	-2	1	1	3	5
KY-693	BN	G	17	60	3	168	132	13	1	-1/2	1	1	1	5

APPENDIX G WOODY PLANTS - WILLOWS

1 9 7 4

NAME/NUMBER	ORIGIN	LOCATION		1	2	3	4	5	6	7	8	9	10
		BLK	ROW	SV	V	H	SP	NS	/ SD	WI	DI	WB	SB
KY-694	BN	G	17	100	3	216	216	7	1/2 - 2-1/2	1	1	1	7
KY-699	BN	G	18	100	1	240	156	20	1/2 - 2-1/2	1	1	1	9
KY-1159	BN	G	23	80	-	72	96	-	-	-	-	-	-
<u>repens</u>													
KY-703	BN	g	17	100	3	120	75	22	1/2 - 2	1	2	1	3
<u>rigida</u>													
KY-669	BN	G	18	80	5	96	96	8	1/2 - 1-1/2	1	1	7	1
KY-670	BN	G	18	100	3	210	192	8	1 - 2	1	1	7	5
<u>rubra</u>													
KY-704	BN	G	17	100	5	204	156	12	1/2 - 2	1	1	3	5
<u>seringeana</u>													
KY-708	BN	G	19	100	1	324	156	3	2 - 4	1	1	1	7
<u>sesquiteria</u>													
KY-709	BN	G	17	60	5	72	a4	6	1/2 - 1-1/2	1	2	9	3
<u>viminalis</u>													
KY-	BN	G	19	100	7	168	84	9	3/4 - 2	1	3	7	3
<u>wimmeriana</u>													
KY-721	BN	G	17	100	1	204	120	5	1/2 - 3	1	1	1	5

LEGEND FOR APPENDIX G

TABLES NO. 2 & 3

COL.

1	Survival Expressed as %	(SV)	Number
2	Vigor	(V)	1-Excellent, 3-Good, 5-Fair, 7-Poor, 9-Failure, 10-Out
3	Height of Tree in Inches	(H)	Number
4	Spread of Crown in Inches	(SP)	Number
5	Number of stems Counted 12 Inches Above Soil Line	(NS)	Number
6	Average Stem Diameter at a Height of 12 Inches Above Soil Line	(SD)	Number
7	Winter Injury	(WI)	1-(0-20%), 3-(20-40%), 5-(40-60%), 7-(60-80%), 9-(80-100%)
8	Disease Injury	(DI)	1-(0-20%), 3-(20-40%), 5-(40-60%), 7-(60-80%), 9-(80-100%)
9	Windbreak	(WB)	Number
10	Streambank	(SB)	Number

American Assoc. of Nurserymen, Inc.
230 Southern Building
Washington, D. C. 20005

Robert F. Lederer, Ex. Vice-president

Dr. Willis H. Skrdla
Regional Plant Introduction Station
Iowa State University
Ames, IA 50011

Can distribute new material to numerous plant centers.

Forest Keeling Nursery
Elsberry, MO 63343

Hillis Nursery Company
Rt. 2, Box 142
McMinnville, TN 37110

American Nurseryman
310 S. Michigan Ave., Suite 302
Chicago, IL 60604

Allen W. Seidel, Pres. and Editor

Southern Florist & Nurseryman
120 St. Louis Avenue
Fort Worth, TX 76101

Mike Branch, Editor

Weeds, Trees & Turf
9800 Detroit Avenue
Cleveland, OH 44102

B. F. Shank, Editor

Grounds Maintenance
1014 Wyandotte Street
Kansas City, MO 64105

J. Clough, Managing Editor

American Assoc. of Nurserymen, Inc.
230 Southern Building
Washington, D.C. 20005

Robert F. Lederer, Ex. Vice-president

Dr. Willis H. Skrdla
Regional Plant Introduction Station
Iowa State University
Ames, IA 50011

Can distribute new material to numerous plant centers.

Forest Keeling Nursery
Elsberry, MO 63343

Hillis Nursery Company
Rt. 2, Box 142
McMinnville, TN 37110

American Nurseryman
310 S. Michigan Ave., Suite 302
Chicago, IL 60604

Allen W. Seidel, Pres. and Editor

Southern Florist & Nurseryman
120 St. Louis Avenue
Fort Worth, TX 76101

Mike Branch, Editor

Weeds, Trees & Turf
9800 Detroit Avenue
Cleveland, OH 44102

B. F. Shank, Editor

Grounds Maintenance
1014 Wyandotte Street
Kansas City, MO 64105

J. Clough, Managing Editor