Species #	Species	VA Native	Seeding Rate (lb/acre) PLS	Plant Depth (in.)	Mountain/Valley/Northern Piedmont		Southern Piedmont		Coastal Plain				
			B:broadcast; D:drill (4-9" row)		Best Dates	Possible Dates	Best Dates	Possible Dates	Best Dates	Possible Dates	HOME		
Average Last Frost			1-N	1-May		15-Apr		1-Apr					
<b>PERENNIAL GRASSES</b> (See section " <b>G</b> , f" of the PEG)					-		-		-		•		
101	<b>Bermudagrass (Hybrid)<sup>2</sup></b> Sprigs – 1 bu = 1.25 ft3		B:30-40 bushels D:15-20 bushels	2"-4"	Not well adapted	May 1-Jun 15	Apr 15-Jun 1	Apr 1thru Jun 15 or thru Jul if irrigated	Apr 1-May 15	Apr 1-Jun 1 or thru Jul if irrigated			
102	Bermudagrass <sup>2</sup> , Coated Seeds (Common & Cultivars)		B:10-12; D:8-10	1/4	Not well adapted	May 1-Jun 15	Apr 15– May 15	Apr 15-Jun 15	Apr 1-May 15	Apr 1-Jun 10			
103	Big Bluestem <sup>3</sup>	✓	B:10-12; D:8-10	1/4	Mar 15	-Jun 30	Mar 1-Jun15		Feb 15-Jun 1		Feb 15-Jun 1		
104	Bluegrass		B:10-15; D:8-12 4-5 in mixtures	1/4	Aug 15-Sep 1; Mar 15-Apr 1	Aug 1-Sep 15; Mar 1-Apr 15	Seed in mixtures Aug 15	Mar 1- Apr 1; 5 - Oct 1	Not well adapted				
105	Eastern Gamagrass <sup>4</sup> (use non-stratified seed for winter planting and stratified seed for spring plantings)	•	R:8-10	1- 1.5	Nov 15-Feb 15; May 1-May30	Nov 15- Feb 15: May 1-Jun 30	Nov 25-Jan 31; Apr 20- May 15	Nov 25-Jan 31; Apr 15 - Jun 10	Dec 1-Jan15; Apr 15- May 5	Dec 1-Jan 15; Apr 15-May 30			
106	Indiangrass <sup>3</sup>	<	B:10-12; D:8-10	1/4	Mar 15	-Jun 30	Mar 1-Jun15		Feb 15-Jun 1				
107	Orchardgrass <sup>5</sup>		B:12-15; D:8-12	1/4-1/2	Aug 20-Sep 10; Mar 15-Apr 1	Aug 15-Oct 1; Mar 1-Apr 15	Aug 25-Sep 15; Mar 1-Apr 1	Aug 25-Oct 25; Mar 1-Apr 15	Not well adapted				
109	Perennial Ryegrass <sup>5</sup>		D: 12-15 B:20-25; 6-10 in mixtures	1/4-1/2	Aug 20-Sep 10; Mar 15-Apr 1	Aug 15-Sep 25; Mar 1-Apr 15	Not well adapted	Aug 25-Oct 1; Feb 25-April 1	Not ad	lapted			
110	Prairiegrass		D:20-25; B:30-35 10-15 in mixtures	1/4-1/2	Aug 15 - Sep 15; Mar 15-Apr 15	Aug 15-Oct 15; Mar 1-Apr 30	Sep 1 - Oct 1; Mar 1-Mar 20	Aug 15-Oct 25; Feb 20-Apr 15	Not well adapted				
111	Switchgrass <sup>3</sup>	~	B:8-10; D:6-8	1/4	Mar 15	-Jun 30	Mar 1	-Jun15	Feb 15-Jun 1				
112	Tall Fescue		B:20-25; D:15-20	1/4-1/2	Aug 15-Sep 10; Mar 15-Apr 15	Aug 1-Sep 30; Mar 1-Apr 30	Sep 1-Sep 30; Mar 1-Apr 1	Aug 25-Nov 1; Feb 25-Apr 15	Sep 1-Oct 10; Feb 1- Mar 15	Sep 1-Nov 10; Feb 15-Mar 20			
113	Timothy		B:10-12; D: 8-10	1/4-1/2	Aug 15-Sep 10; Mar 15-Apr 1	Aug 15-Oct 1; Mar 1-Apr 15	Not well adapted		Not adapted		Not well adapted Not adapted		
	MIXTURES										-		
114	Orchardgrass + Alfalfa <sup>6</sup>		B:5+20; D:3+15	1/4-1/2	Aug 15-Sep 1; Mar 15-Apr 1	Aug 1-Sep 15; Mar 1-Apr15	Aug 25-Sep 15; Mar 1-Mar 20	Aug 25-Oct 15; Feb 25-Apr 1	Not well	adapted			

115	Orchardgrass with 1 or more of the following: Ladino Clover Red Clover Annual Lespedeza	B: 10-12; D:8-10 1-2 4-6 10-12	1/4-1/2	Aug 20-Sep 10; Mar 15-Apr 1	Aug 15-Oct 1; Mar 1-Apr 15	Aug 25-Sep 15; Mar 1-Mar 20	Aug 25-Oct 15; Feb 25-Apr 1	Not well adapted		HOME
116	Orchardgrass and Timothy with 1 or more of the following: Ladino Clover Red Clover Annual Lespedeza	B: 10-12; D:8-10 B: 4; D:2 1-2 4-6 10-12	1/4-1/2	Aug 20-Sep 10; Mar 15-Apr 1	Aug 15-Oct 1; Mar 1-Apr 15	Aug 25-Sep 15; Mar 1-Mar 20	Aug 25-Oct 15; Feb 25-Apr 1	Not well adapted		
117	Tall Fescue with 1 or more of the following: Ladino Clover Red Clover Annual Lespedeza	B:20-25; D:15-20 1-2 4-6 10-12	1/4-1/2		- Oct 1; -Apr 15		- Oct 15; D-Apr 1	Sep 1 - Oct 31; Feb 1-Mar 15		
118	Prairiegrass with 1 or more of the following: Red Clover Alfalfa <sup>6</sup>	B:20-25; D:15-20; 4-6 15	1/4-1/2	Aug 15 - Sep 15; Mar 10-Apr 10	Aug 1-Sep 20; Mar 1-Apr 15	Aug 25 - Sep 15; Mar 1-Mar 20	Aug 15-Oct 15; Feb 25-Apr 1	Not well adapted		
ANNUAL GRASSES										_
119	Crabgrass <sup>7</sup>	B:6-8; D:4-6	1/4	May 15-May 31	May 1-Jun 30	May 1-May 31	Apr 15-Jun 30	Apr 25 – May 15	Apr 15 – Jun 15	
120	Barley	B:140; D:120	1 - 1.5	Aug 15-Sep 15	Aug 10-Sep 30	Aug 25-Sep 15	Aug 15-Sep 30	Sep 1 - Oct 15		
121	Millet, Pearl	B:30-40; D:15-20	<sup>1</sup> /2 - 1	May 15-May 31	May 1-Jun 30	May 1-May 31	Apr 25-Jun 30	May 1-May 15	Apr 20-Jun 30	
122	Millet, German Foxtail, Japanese	B:20-30;D:15-20	1/4	May 15-May 31	May 1-Jun 30	May 1-May 31	May 1-Jun 30	May 1-May 15	Apr 20-Jun 30	
123	Oats, Winter <sup>8</sup>	B:80-96; D:65-80	1 – 1.5	Aug 15-Sep 10	Aug 10-Sep 15; Feb 1-Mar 1	Sep 1-Sep 15	Aug 25-Oct 1; Feb 1-Mar 1	Sep 15-Sep 30	Sep 1-Oct 15; Feb 1-Mar 1	
124	Oats, Spring	B:80-96; D:65-80	1 - 1.5	Mar 15-Apr 1	Mar 15-Apr 10	Mar 5-Mar 20	Mar 5-Apr 1	Plant winter oats during Feb		
125	Rye	B:120-150; D:90-110	1 - 1.5	Aug 15-Aug 31	Aug 15-Oct 25	Aug 25-Sep 15	Aug 20-Oct 31	Sep 5-Sep 30	Sep 1-Nov 15	
126	Ryegrass	B:30-40; D:20-30	1/4-1/2	Aug 15-Sep 10	Aug 10-Sep 30	Aug 25-Sep 15	Aug 20-Oct 31	Sep 1-Sep 30	Sep 1-Nov 15	
127	Teff <sup>7,9</sup>	B: 6-8; D 5-6	1/8	Jun 1-Jun 15	May 15 - Jul 1	May 20-Jun 10	May 1 - Jul 1	Not well adapted		

120	X471	B:150; D:						0		]
128	Wheat	120	1 - 1.5	Aug 15-Aug 31	Aug 15-Oct 25	Aug 25-Sep 15	Aug 20-Oct 31	Sep 5-Sep 30	Sep 1-Nov 15	
129	<b>Small grain Mix</b> (2 Grains)	Reduce each selection b 50%	y 1 – 1.5	See dates for smallgrains.		See dates for smallgrains.		See dates for smallgrains.		HOME
130	Small grain mixed with annual ryegrass	Reduce Smallgrain 25% ryegrass 50%	& <sup>1</sup> /2 - 1	See dates for grains and ryegrass.		See dates for grains and ryegrass.		See dates for grains and ryegrass.		
131	Sorghum-Sudangrass	B:30-40; D:20-30	<sup>1</sup> /2 <b>-</b> 1	May 15-May 31	May 1-Jun 30	May 1- May 31	Apr 25-Jun 30	May 1-May 15	Apr 20-Jun 30	
132	Sorghum, Forage	B: 15-20; R:5-10	1 – 1 ½	May 15-May 31	May 1 – Jun 30	May 1–May 31	Apr 25 – Jun 30	May 1–May 15	Apr 20 – Jun 30	
133	Sudangrass	B:30-35; D:15-20	<sup>1</sup> /2 - 1	May 15 -May 31	May 1 – Jun 30	May 1–May 31	Apr 25 – Jun 30	May 1–May 15	Apr 20 – Jun 30	
134	Triticale	B:140-180; D: 120-140	1 – 1.5	Aug 15-Aug 31	Aug 15-Oct 25	Aug 25-Sep 15	Aug 20-Oct 31	Sep 5-Sep 30	Sep 1-Nov 15	
Р	ERENNIAL LEGUMES									_
135	Alfalfa <sup>6</sup>	B:20-25; D:15-20	1⁄4	Aug 25-Sep 15; Mar 20–Apr 7	Aug 15-Sep 25; Mar 15-Apr 15	Sep 1-Sep 15; Mar 10-Mar 20	Aug 25-Oct 1; Mar 5-Apr 5	Sep 15-Sep 30; Mar 1- Mar 15	Sep 1-Oct 15; Mar 1- Mar 30	
136	Alfalfa (no-till seeding into grass)	D:10-12	1/4 - 1/2	Mar 20–Apr 7	Mar 15-Apr 15	Mar 10-Mar 20	Mar 5-Apr 5	Mar 1- Mar 15	Mar 1- Mar 30	
137	Birdsfoot Trefoil (no-till into suppressed grass sod)	D:6-8	1/4	Aug 15-Sep 1	Aug1-Sep 15	Not a	dapted	Not adapted		
138	Birdsfoot Trefoil (frost seed onto pasture)	B: 8-10	0	Feb 1-Mar 1	Jan 25-Mar 10	Not adapted		Not adapted		
139	Ladino or White Clover (no-till into suppressed grass sod)	D:1-2	1/4	Aug 20-Sep 10; Mar 15-Apr 1	Aug 15-Sep 25; Mar 1-Apr 15	Aug 25-Sep 15; Mar 1-Mar 20	Aug 25-Oct 15; Feb 25-Apr 1	Sep 1-Sep 30; Feb 20-Mar 15	Sep 1-Oct 25; Feb 15-Mar 20	
140	Ladino or White clover (frost seed onto pasture)	B:1-2	0	Feb 1-Mar 1	Jan 25-Mar 10	Jan 25-Feb 15	Jan 20-Mar 1	Jan 15-Feb 15	Jan 15-Feb 25	1
141	Red Clover (no-till into suppressed grass sod)	D:4-6	1/4 - 1/2	Aug 20-Sep 10; Mar 15-Apr 1	Aug 15-Sep 25; Mar 1-Apr 15	Aug 25-Sep 15; Mar 1-Mar 20	Aug 25-Oct 15; Feb 25-Apr 1	Sep 1-Sep 30; Feb 20-Mar 15	Sep 1-Oct 25; Feb 15-Mar 20	
142	<b>Red Clover</b> (frost seed onto pasture)	B:4-6	0	Feb 1-Mar 1	Jan 25-Mar 10	Jan 25-Feb 15	Jan 20-Mar 1	Jan 15-Feb 15	Jan 15-Feb 25	]
	ANNUAL LEGUMES									-
143	<b>Crimson Clover</b> w/Ryegrass or smallgrain	B:20; D:15 & reduce smallgrain by 1/3	1/4 - 1/2	Aug 15-Sep 10	Aug 10-Sep 30	Aug 25-Sep 15	Aug 20-Oct 15	Sep 1-Sep 30	Sep 1-Oct 25	

144	Lespedeza, Kobe (Southeast VA) (frost seeded onto pastures)	B:10-15	0	Not adapted		Not well adapted		Jan 15-Feb 15	Jan 15-Mar 1	
145	<b>Lespedeza, Korean</b> (frost seeded onto pastures)	B:10-15	0	Feb 1-Mar 1	Feb 1-Mar 15	Jan 25-Mar 1	Jan 25-Mar 10	Jan 15-Feb 15	Jan 15-Mar 1	
146	Hairy Vetch w/ small grain	B: 15; D 10& reduce small grain by 50%	<sup>1</sup> /2 <b>-</b> 1 <sup>1</sup> /2	Aug 15-Aug 31	Aug 15-Sep 15	Aug 25-Sep 15	Aug 20-Oct 1	Sep 5-Sep 30	Sep 1-Oct 15	HOME
	OTHER SPECIES	-		-	-	-	-	-	-	-
147	Chicory (in mixture w/grass & legume)	B: 3-4 D: 1-2	1/4 - 1/2	Apr 15-May5	Apr 1-May 15	Sep 1-Sep 15	Sep 1-Oct 10	Sep 1-Sep 25	Sep 1- Oct 15	]
148	<b>Brassicas<sup>11</sup></b> (sow 1-2 of the following in a 50% rate mix of summer or winter annual grasses in late spring or late summer respectively) Rape Kale Turnip Turnip X Rape Radish	B: 2-3 D: 1-2	1/4 - 1/2	May 1 - Jun 30	Aug 1 - Sep 1	Apr 20 - Jun 20	Aug 1 - Sep 10	April 10 - Jun 10	9 Aug 15- Sep 20	

<sup>1</sup>The northern peidmont planting dates may be on the opposite end of the planting range compared to the mountains and valley in Southwest VA

<sup>2</sup> Sprigged and seeded Bermudagrass have been established in the mountain and valley region of the state but are not well adapted and have a higher chance of winter kill.

<sup>3</sup>Native warm season grass planting date will vary within the planting window depending on dormancy of seed and expected annual grass/weed competition in the field.

<sup>4</sup> Eastern gamagrass can be planted with a corn planter (30" row) or with a drill on approximately 15" row centers (by blocking every other seed tube)

<sup>5</sup>This species tends to be a short lived perennial when planted and managed in monocultures in the peidmont and eastern regions of VA; it seems does better in the mountain and vallev regions of the state especially when managed with rotational stocking in a mixed stand with other grasses and legumes.

<sup>6</sup>Fall planted alfalfa should not be no-tilled; alfalfa should be planted in spring 30 days prior to last killing frost and in fall 30-60 days before first killing frost

<sup>7</sup>Planting too deep is a common cause of stand failure

<sup>8</sup>It is generally not recommended to plant oats in the fall west of the Blue Ridge because they will winter kill, however they are sometimes planted late summer and grazed in the fall and early winter.

<sup>9</sup>Not recommended for no-till planting, needs a clean firm seedbed to ensure establishment.

<sup>10</sup>Sweetclover is a biennial and will only survive one winter, low cumarin cultivars recommended, it may work best in mob grazing where it is not grazed low and has long recovery periods to form seed.

<sup>11</sup>Brassicas are not recommended in a monoculture, they are low in fiber and have highly digestible protein and can cause problems with rumen function; they should be planted mixed with summer or winter annuals to avoid problems (50% seeding rate of brassicas and 50% annuals).