DURABLE SHRUBS AND GROUND COVERS FOR PERMANENT COVER

TABLE 6–5.3

GROUND COVERS INCLUDE A WIDE RANGE OF LOW-GROWING PLANTS PLANTED TOGETHER IN ENVIRONMENTALLY SUITABLE TO COVER LARGE AREAS OF THE LANDSCAPE. GROUND COVERS GROW SLOWER THAN GRASSES. WEEDS ARE LIKELY TO COMPETE, ESPECIALLY THE FIRST YEAR. MAINTENANCE IS NEEDED TO INSURE SURVIVAL. THESE GROUND COVERS WILL NOT BE USED UNLESS PROPER MAINTENANCE IS PLANNED. MAINTAIN MULCH AT THREE–INCH THICKNESS UNTIL PLANTS PROVIDE ADEQUATE COVER.

FULL PLANTING IS ENCOURAGED BECAUSE THE NEED FOR CONSTANT WATERING IS REDUCED AND PLANTS HAVE TIME TO ESTABLISH NEW ROOTS BEFORE HOT WEATHER.

COMMON NAME	SCIENTIFIC NAME	MATURE HEIGHT	PLANT SPACING	COMMENTS
ALBELIA	ABELIA GRANDIFLORA	3–4 FT.	3 FT.	ARCH SHRUB WITH FORM 2 FEET HIGH AND WIDER. SEMI–SHADE. SEMI–EVERGREEN
CAROLINA YELLOW JESSAMINE	GELSEMIUM SEMPERVIRENS	LOW	3 FT.	VINE, YELLOW, TRUMPET–LIKE FLOWERS, HARDY, ONE OF BEST VINES. EVERGREEN. NATIVE TO GEORGIA.
CARPET BUGLE	AJUGA REPTANS	2–4 IN.	3 FT.	WEEDS GOOD GRANNAL. PARTIAL SHADE, BLUE OR WHITE FLOWERS. EVERGREEN
CRANBERRY COTONEASTER	COTONEASTER APPLANATUS	3–4 FT.	3 FT.	WHITE FLOWERS, RED FRUIT. SUN, EVERGREEN
GROUND COVER COTONEASTER	COTONEASTER SALICIFOLIUS "REPENS"	1–2 FT.	3 FT.	WHITE FLOWERS, RED FRUIT. SUN, EVERGREEN
ROCK COTONEASTER	COTONEASTER HORIZONTALIS	1–2 FT.	3 FT.	SEMI–EVERGREEN. SUN.
VIRGINIA CREEPER	PARTHENOCISSUS QUINQUEFOLIA	LOW	3 FT.	RED IN FALL. VINE DECIDUOUS. NATIVE TO GEORGIA
DAYLILY	HEMEROCALLIS SPP.	2–3 FT.	3 FT.	MANY FLOWERS COLORS. FULL SUN. VERY HARDY.
ENGLISH IVY	HEDERA HELIX	LOW	5 FT.	SHADE ONLY. CLIMBS
COMPACTA HOLLY	ILEX CRENATA "COMPACTA"	3–4 FT.	5 FT.	SUN, SEMI–SHADE
CHINESE HOLLY	ILEX CORNUTA "BURFORDII"	3–4 FT.	5 FT.	VERY DURABLE. SUN, SEMI–SHADE
DWARF BURFORD HOLLY	ILEX BURFORDII "NANA"	5–6 FT.	6 FT.	
DWARF YAUPON HOLLY	ILEX YOMITORIA "NANA"	3–4 FT.	5 FT.	VERY DURABLE. SUN, SEMI–SHADE
REPANDENS HOLLY	ILEX CRENATA "REPANDENS	2–3 FT.	5 FT.	SUN, SEMI–SHADE
ANDORRA JUNIPER	JUNIPERUS HORIZONTALIS "PLUMOSA"	2–3 FT.	5 FT.	EXCELLENT FOR SLOPES
ANDORRA COMPACTA JUNIPER	JUNIPERUS HORIZONTALIS "PLUMOSA COMPACTA"	1–2 FT.	5 FT.	MORE COMPACT THAN ANDORRA.
BLUE CHIP JUNIPER	JUNIPERUS HORIZONTALIS "BLUE CHIP"	6–10 FT.	4 FT.	
BLUE RUG JUNIPER	JUNIPERUS HORIZONTALIS "WILTONII"	4–6 FT.	3 FT.	VERY LOW. SUN.
PARSONS JUNIPER	JUNIPERUS SAVARDA "EXPANSA" (SARGENTII PARSONII)	18–24 FT.	5 FT.	ONE OF THE BEST GOOD WINTER COVER
PFITZER JUNIPER	JUNIPERUS CHINENSIS "PFITZERIANA"		5 FT.	WEEDS ROOMS
HANCE WALE'S JUNIPER	JUNIPERUS HORIZONTALIS "HANCE OF WILDE"	8–10 IN.	4 FT.	FEATHERY APPEARANCE.
SARGENT JUNIPER	JUNIPERUS CHINENSIS "SARGENTII"	1–2 FT.	5 FT.	FULL SUN. NEEDS GOOD DRAINAGE. GOOD WINTER COLOR
SHORE JUNIPER	JUNIPERUS CONFERTA	2–3 FT.	5 FT.	EMERALD SEA OF BLUE PACIFIC CULTIVARS ARE GOOD
LIRIOPE	LIRIOPE MUSCARI	8–10 IN.	2 FT.	
CREEPING LIRIOPE	LIRIOPE SPICATA	10–12 IN.	1 FT.	SPREADS BY RUNNERS.
BIG LEAF PERIWINKLE	VINCA MAJOR	12–18 IN.	4 FT.	LILAC FLOWERS IN SPRING. SEMI–SHADE
COMMON PERIWINKLE	VINCA MINOR	9–6 IN.	4 FT.	LAVENDER–BLUE FLOWERS IN SPRING SEMI–SHADE
DROOPING ROSE	ROSA LAEVIGATA	5 FT.	5 FT.	RAMPANT GROWER, NOT FOR RESTRICTED SPACES. STATE FLOWER
MEIMONA ROSE	ROSA WICHURAIANA	2 FT.	5 FT.	RAMPANT GROWER.
ST. JOHNSWORT	HYPERICUM CALYCINUM	8–12 IN.	3 FT.	SEMI–SHADE
ANTHONY WATERER SPIREA	SPIREA BUMALDA	3–4 FT.	5 FT.	SUN.
THUNBERG SPIREA	SPIREA THUNBERGII	3–4 FT.	5 FT.	SUN.

PERMANENT COVER

TABLE 6–4.1 COMPANION CROPS

TYPE OF SPECIES	APPLICATION TYPE	APPLICATION RATE/3		RESOURCE AREA	SEASONAL RANGE OF GOOD AND MARGINAL PLANTING DATES (GOOD PLANTING DATES SHOWN DARKER THAN MARGINAL PLANTING DATES)	OPTIMUM PLANTING DATES	REMARKS
		PER ACRE	PER 1000 SQ.FT.				
BAHIA, PENSACOLA (Paspalum Notatum)	ALONE OR WITH TEMPORARY COVER	60 lbs.	1.4 lbs.	P C		1/1 – 5/31 8/15 – 12/31	150,000 SEED PER POUND. LOW GROWING, SOD FORMING, SLOW TO ESTABLISH. WILL SPREAD INTO BERMUDA LAWNS. MIX WITH SERICEA LESPEDEZA OR WEEPING LOVEGRASS.
	WITH OTHER PERENNIALS	30 lbs.	0.7 lbs.				
BAHIA, WILMINGTON (Paspalum Notatum)	ALONE OR WITH TEMPORARY COVER	60 lbs.	1.4 lbs.	M–L P		1/1 – 5/31 8/15 – 12/31	150,000 SEED PER POUND. LOW GROWING, SOD FORMING, SLOW TO ESTABLISH. WILL SPREAD INTO BERMUDA LAWNS. MIX WITH SERICEA LESPEDEZA OR WEEPING LOVEGRASS.
	WITH OTHER PERENNIALS	30 lbs.	0.7 lbs.				
BERMUDA, COMMON (Cynodon Dactylon)	ALONE	10 lbs.	0.2 lbs.	P C		4/1 – 5/31 8/15 – 9/31	1,787,000 SEED PER POUND. QUICK COVER. LOW GROWING AND SOD FORMING. FULL SUN. GOOD FOR ATHLETIC FIELDS.
	WITH OTHER PERENNIALS	6 lbs.	0.1 lbs.				
BERMUDA, HULLED (Cynodon Dactylon)	WITH TEMPORARY COVER	10 lbs.	0.2 lbs.	P C		10/1 – 3/28 4/1 – 5/31	PLANT WITH WINTER ANNUALS.
	UNHULLED SEED	6 lbs.	0.1 lbs.				
BERMUDA SPRIGS (Cynodon Dactylon)	SPRIG SOD PLUGS	40 cu.ft.	0.8 cu.ft.	M–L P		4/15 – 6/15 4/1 – 5/31 8/15 – 9/31	1 cu.ft. = 950 SPRIGS (APPROX.). PLANT SOD PLUGS ON 3x3 FOOT GRID. MIX WITH SERICEA LESPEDEZA OR CENTIPEDE. USE ON ALL RESOURCE AREAS; 181 76 ONLY IN C, AND MULCHED ONLY IN M–L.
CENTIPEDE (Eremochloa Ophiuroides)	BLOCK SOD	BLOCK SOD ONLY	BLOCK SOD ONLY	P C		11/1 – 5/31 8/1 – 10/15	DROUGHT TOLERANT, FULL SUN OR PARTIAL SHADE. EFFECTIVE IN CONSOLIDATED FLOWS. SHREDDED, UNMIXED UNITS. ESTABLISHES SLOWLY. DO NOT PLANT NEAR PASTURES. WINTERKILLED.
CROWNVETCH (Coronilla Varia)	WITH WINTER ANNUALS AND COOL SEASON GRASSES	15 lbs.	0.3 lbs.	M–L P		8/1 – 10/15 3/1 – 10/15	100,000 SEED PER POUND. DENSE GROWTH, DROUGHT TOLERANT AND FIRE RESISTANT. USE WITH 20 POUNDS OF TALL FESCUE OR 15 POUNDS OF RYE. INOCULATE SEED WITH 'M INOCULANT. USE NORTH OF ATLANTA.
FESCUE, TALL (Festuca Arundinacea)	ALONE	50 lbs.	1.1 lbs.	M–L M–L P		3/1 – 4/15 8/15 – 10/15 8/15 – 10/15	227,000 SEED PER POUND, USE ALONE ONLY ON BETTER SITES. NOT FOR CONSOLIDATED FLOWS. USE WITH LOW GROWING LEGUMES ON CONTOURS. ONLY TOPDRESS WITH A STRIPPED FESCUE SEED MIX. USE ON FILL PLANTINGS. NOT FOR HEAVY USE AREAS (e.g. ATHLETIC FIELDS).
	WITH OTHER PERENNIALS	30 lbs.	0.7 lbs.				
LESPEDEZA, SERICEA (Lespedeza Cuneata)	ALONE	60 lbs.	1.4 lbs.	M–L P C		4/1 – 5/31 8/15 – 9/31 2/1 – 3/31	350,000 SEED PER POUND, WIDELY ADAPTED. LOW MAINTENANCE. MIX WITH WEEPING LOVEGRASS, COMMON BERMUDA, BAHIA, OR TALL FESCUE. DO NOT MIX WITH SERICEA LESPEDEZA. SLOW TO DEVELOP SOLID STANDS. TAKES 2 TO 3 YEARS TO BECOME FULLY ESTABLISHED. USE ON ROADBANKS. INOCULATE SEED WITH EL INOCULANT.
SCARIFIED							
LESPEDEZA, SERICEA (Lespedeza Cuneata)	ALONE	75 lbs.	1.7 lbs.	M–L P C		2/1 – 2/28 8/15 – 9/31 2/1 – 3/31	
UNSCARIFIED							
LESPEDEZA, SERICEA (Lespedeza Cuneata)	ALONE	3 TONS	130 lbs.	M–L P C		10/1 – 3/28 8/15 – 9/31 10/15 – 3/31	CUT WHEN SEED IS MATURE, BUT BEFORE IT SHATTERS. ADD TALL FESCUE OR WINTER ANNUALS.
SEED BEARING HAY							
LESPEDEZA, KOBE'S VIRGATA, OR APPALOW (Lespedeza Virgata) or (Lespedeza Stipulacea)	ALONE	60 lbs.	1.4 lbs.	M–L P C		4/1 – 5/31 8/15 – 9/31 2/1 – 3/15	300,000 SEED PER POUND, HEIGHT OF GROWTH IS 18 TO 24 INCHES. ADVANTAGEOUS IN LINEAR AREAS. SPREADING–TYPE GROWTH. MIX WITH WEEPING LOVEGRASS, COMMON BERMUDA, BAHIA, TALL FESCUE OR WINTER ANNUALS. DO NOT MIX WITH SERICEA LESPEDEZA. SLOW TO DEVELOP SOLID STANDS. INOCULATE WITH EL INOCULANT.
LESPEDEZA, KOBE'S VIRGATA OR APPALOW (Lespedeza Virgata) or (Lespedeza Stipulacea)	ALONE	75 lbs.	1.7 lbs.	M–L P C		2/1 – 2/28 8/15 – 9/31 2/1 – 3/31	
LOVEGRASS, WEEPING	PLANTS ONLY	PLANTS ONLY	PLANTS ONLY	M–L P C		10/1 – 3/31 11/15 – 3/28	PLANT ON 3x3 FOOT GRID. PROVIDE WILDLIFE FOOD AND COVER.
LOVEGRASS, WEEPING (Eragrostis Curvula)	ALONE	4 lbs.	0.1 lbs.	M–L C		4/1 – 5/31 8/15 – 9/31	1,000,000 SEED PER POUND, QUICK COVER, DROUGHT TOLERANT. GROWS WITH SERICEA LESPEDEZA ON ROADBANKS.
	WITH OTHER PERENNIALS	2 lbs.	0.05 lbs.				
MAIDENCANE (Panicum Hemitomon)	SPRIGS	SPRIGS ONLY	SPRIGS ONLY	M–L P		2/1 – 3/31 2/1 – 3/31 2/1 – 3/31	PLANT AT 3x3 FOOT SPACING. FOR VERY WET SITES. MAY CLOG CHANNELS. DIE SPRIGS FROM LOCAL SOURCES. USE ALONG RIVER SHORES AND SHORELINES.
PANICGRASS, ATLANTIC OR COASTAL (Panicum Amarulum, Amarulum)	ALONE	20 lbs.	0.5 lbs.	M P		4/20 – 6/15 8/15 – 9/31	GROWS WELL ON COASTAL SAND DUNES, BORROW AREAS, AND GRAVEL PITS. USE ON COASTAL SAND DUNES ONLY FOR WILDLIFE. MIX WITH SERICEA LESPEDEZA EXCEPT ON SAND DUNES.
REED CANARY GRASS (Phalaris Arundinacea)	ALONE	50 lbs.	1.1 lbs.	M–L P		9/15 – 10/15 3/1 – 10/15	GROWS SIMILAR TO TALL FESCUE.
	WITH OTHER PERENNIALS	30 lbs.	0.7 lbs.				
SUNFLOWER, "EXTRA" or "MAXIMILIAN" (Helianthus Maximilliani)	ALONE	10 lbs.	0.3 lbs.	M–L C		4/15 – 5/31 8/15 – 9/31	227,000 SEED PER POUND. MIX WITH WEEPING LOVEGRASS OR OTHER LOW–GROWING GRASSES OR LEGUMES.
WILDFLOWER (Various Thumbergiana)	PLANTS OR CROPING	PLANTS OR CROPING	PLANTS OR CROPING	M–L P		1/1 – 3/15 1/1 – 3/15 1/1 – 3/15	PLANT AT 3 TO 7 FOOT SPACING. RANK AND VIGOROUS GROWTH. EXCELLENT EROSION CONTROL. WILL CLIMB. VICINITY WITH LOCAL JURISDICTION PRIOR TO USE.

TREES FOR EROSION CONTROL

TABLE 6–5.4

SITE	SOIL MATERIAL	COMMON SOILS	PLANTING TREE SPECIES 1/	SPACING	PLANTING RATES 4/
SURFACE AREAS, 12/1–3/15 GRADED AREAS, AND SPOIL MATERIAL	SANDY	LAKELAND, TROUP	LOBLOLLY PINE (PINUS TAEDA)	(3)	M–LP 12/1–3/15 C 12/1–3/1
	LOAMY	ORANGEBURG, TIFTON	LONGLEAF PINE (PINUS PALUSTRIS) LOBLOLLY PINE		M–LP 12/1–3/15 C 12/1–3/1
	CLAY	CECIL, FACEVILLE	SLASH PINE LOBLOLLY PINE SLASH PINE VIRGINIA PINE (PINUS VIRGINIANA)		M–LP 12/1–3/15 C 12/1–3/1
STREAMBANKS ALL 11/15–3/15			WILLOWS 4/ (SALIX SPECIES)	2 FT X 2 FT	

(1) OTHER TREES AND SHRUBS LISTED ON TABLE 6–5.3 MAY BE INTERPLANTED WITH THE PINES FOR IMPROVED WILDLIFE BENEFITS.

(2)

TYPE OF PLANTING	TREE SPACING	NO. OF TREES PER ACRE
TREES ALONE	4 FT. X 4 FT.	2722
TREES IN COMBINATION WITH GRASSES AND/OR OTHER PLANTS	6 FT. X 6 FT.	1210

(3) FERTILIZATION OF COMPANION CROP IS AMPLE FOR THIS SPECIES.

FERTILIZER REQUIREMENTS

TABLE 6–5.1

TYPE OF SPECIES	YEAR	ANALYSIS OF N–P–K	EQUIVALENT	TON 1/ DRESSING RATE
1. COOL SEASON GRASSES	FIRST	6–12–12	1000 LBS./AC.	50–100 LBS./AC. 1/2/
	SECOND MAINTENANCE	10–10–10	400 LBS./AC.	30
2. COOL SEASON GRASSES AND LEGUMES	FIRST	6–12–12	1000 LBS./AC.	0–50 LBS./AC. 1/
	SECOND	0–10–10	1000 LBS./AC.	"
	MAINTENANCE	10–10–10	400 LBS./AC.	"
3. GROUND COVERS	FIRST	10–10–10	1800 LBS./AC.	"
	SECOND	0–10–10	1000 LBS./AC.	"
	MAINTENANCE	10–10–10	400 LBS./AC.	"
4. PINE SEEDINGS	FIRST	20–10–5	ONE 21–GRAM PELLET PER SEEDING PLACED IN THE CLOSING HOLE	"
5. SHRUBS LESPEDEZA	FIRST	0–10–10	700 LBS./AC.	"
	MAINTENANCE	0–10–10	700 LBS./AC.	
6. TEMPORARY COVER CROPS SEEDED ALONE	FIRST	10–10–10	500 LBS./AC.	30 LBS./AC.
7. WARM SEASON GRASSES	FIRST	6–12–12	1500 LBS./AC.	50–100 LBS./AC. 3/ 4/
	SECOND	6–12–12	800 LBS./AC.	30–100 LBS./AC 3/
	MAINTENANCE	10–10–10	400 LBS./AC.	30 LBS./AC.
8. WARM SEASON GRASSES AND LEGUMES	FIRST	0–12–12	1500 LBS./AC.	30 LBS./AC. 5/
	SECOND	0–10–10	1000 LBS./AC.	
	MAINTENANCE	0–10–10	400 LBS./AC.	

(1) APPLY IN SPRING FOLLOWING SEEDING.
(2) APPLY IN SPLIT APPLICATIONS WHEN 100 LBS./AC. OR MORE IS USED.
(3) APPLY IN 2 SPLIT APPLICATIONS.
(4) APPLY WHEN PLANTS ARE PRUNED.
(5) APPLY TO GRASS SPECIES ONLY.
(6) APPLY WHEN PLANTS GROW TO A HEIGHT OF 3 TO 4 INCHES.

DISTURBED AREA STABILIZATION (WITH PERMANENT SEEDING)

Da3

MULCHING

- MULCH IS REQUIRED FOR ALL PERMANENT VEGETATION APPLICATIONS.
- STRAW OR HAY MULCH WILL BE SPREAD UNIFORMLY WITHIN 24 HOURS AFTER SEEDING AND/OR PLANTING.
- MULCH SHALL BE USED AS A SEEDING MATERIAL TO CONSERVE MOISTURE AND CONTROL WEEDS IN BUSHES, ORNAMENTAL BEDS, AROUND SHRUBS, AND ON BARE AREAS ON LAWNS.
- THE MULCH MAY BE SPREAD BY BLOWER–TYPE SPREADING EQUIPMENT, OTHER SPREADING EQUIPMENT OR BY HAND.
- MULCH SHALL BE APPLIED TO COVER 75% OF THE SOIL SURFACE.
- WOOD CELLULOSE OR WOOD FIBER MULCH SHALL BE APPLIED UNIFORMLY WITH HYDRAULIC SEEDING EQUIPMENT.
- SELECT THE MULCHING MATERIAL BEST SUITED OR AS OUTLINED IN PLAN.
- DRY STRAW OR DRY HAY OF GOOD QUALITY AND FREE OF WEED SEEDS CAN BE USED. DRY STRAW SHALL BE APPLIED AT THE RATE OF 2 TONS PER ACRE. DRY HAY SHALL BE APPLIED AT A RATE OF 1.5 TONS PER ACRE. BOTH SHALL BE APPLIED TO ACHIEVE 4 TO 6 INCHES OF THICKNESS.
- WOOD CELLULOSE MULCH OR WOOD PULP FIBER SHALL BE USED WITH HYDRAULIC SEEDING. IT SHALL BE APPLIED AT THE RATE OF 500 POUNDS PER ACRE TO ACHIEVE 4 TO 6 INCHES OF THICKNESS. DRY STRAW OR DRY HAY SHALL BE THEN BE APPLIED AFTER HYDRAULIC SEEDING.
- WOOD CELLULOSE AND WOOD PULP FIBER SHALL NOT BE USED ON SLOPES EXCEEDING 3:1 WITHOUT REINFORCING FACTORS. THEY SHALL ONLY BE USED DURING SPRING AND FALL PLANTINGS. THE FIBERS SHALL CONTAIN A DYE TO ALLOW VISUAL METERING AND AID IN UNIFORM APPLICATION. NOT FOR HEAVY USE AREAS (e.g. ATHLETIC FIELDS).
- HYDRAULIC SEEDING ON SLOPES 3/4(4) OR STEEPER SHALL USE 1,000 POUNDS OF WOOD CELLULOSE OR WOOD PULP FIBER, WHICH INCLUDES A TACKIFIER.
- SERICEA LESPEDEZA HAY CONTAINING MATURE SEED CAN BE USED AS MULCH IN AREAS WHERE AT A MINIMUM OF 1,500 POUNDS PER ACRE.
- PINE STRAW OR PINE BARK CAN BE USED AND SHALL BE APPLIED AT A THICKNESS OF 3 TO 6 INCHES FOR SEEDING PURPOSES. 100 TO 200 POUNDS PER 1000 SQUARE FEET. OTHER SUITABLE MATERIALS IN SUFFICIENT QUANTITY MAY BE USED WHERE SITE CONDITIONS ARE FAVORABLE AND PLANTED.
- WHEN USING TEMPORARY EROSION CONTROL BLANKETS OR BLOCK SOD, MULCH IS NOT REQUIRED.
- BITUMINOUS TREATED ROVING MAY BE APPLIED ON PLANTED AREAS ON SLOPES, IN DITCHES AND ON SHORELINES AS PLANTED. TURF ESTABLISHMENT AND INSTALLATION MUST BE GEORGIA DEPARTMENT OF TRANSPORTATION SPECIFICATIONS.

ANCHORING MULCH

- STRAW OR HAY MULCH SHALL BE ANCHORED IMMEDIATELY AFTER PLACEMENT.
- MULCH ON SLOPES GREATER THAN 20' SHOULD BE ANCHORED WITH EMULSIFIED ASPHALT (GRADE AC–20R 60–1) OR OTHER SUITABLE TACKIFIER.
- WOOD WASTE ON SLOPES FLATTER THAN 3:1 (33%) DO NOT NEED ANCHORING.
- STRAW OR HAY MULCH CAN BE PRESSED INTO THE SOIL WITH A DISC HARROW WITH THE AXE SET NEARLY STRAIGHT OR SPECIAL "PACKER DISK". DISKS MAY BE SMOOTH OR SERRATED AND SHOULD BE 20 INCHES OR LARGER IN DIAMETER AND 9 TO 12 INCHES APART. THE EDGES OF THE DISK SHOULD BE DULL ENOUGH TO CUT THE MULCH BUT TO PRESS IT INTO THE SOIL LEAVING MUCH OF IT IN AN ERECT POSITION.
- STRAW OR HAY MULCH SPREAD WITH SPECIAL BLOWER–TYPE EQUIPMENT MAY BE ANCHORED WITH EMULSIFIED ASPHALT (GRADE SS–1H OR CSS–1H). THE ASPHALT EMULSION SHALL BE DIRECTED ONTO THE MULCH AS IT IS BEING BLOWN. THE EMULSIFIED ASPHALT SHALL BE APPLIED IMMEDIATELY FOLLOWING MULCH APPLICATION WHEN STRAW OR HAY IS SPREAD BY METHODS OTHER THAN SPECIAL BLOWER EQUIPMENT.
- EMULSIFIED ASPHALT SHALL BE APPLIED AS A MINIMUM OF 100 GALLONS OF EMULSIFIED ASPHALT PER 1000 GALLONS OF WATER PER TON OF MULCH.
- TACKIFIERS AND ADHESIVES MAY BE USED AS SUBSTITUTES FOR EMULSIFIED ASPHALT. APPROVED TACKIFIERS OR BINDERS APPROVED BY GDOT SHALL BE USED IN CONJUNCTION WITH OR IMMEDIATELY FOLLOWING THE MULCH APPLICATION. ADHESIVE MANUFACTURER'S RECOMMENDATIONS SHALL BE FOLLOWED FOR APPLICATION RATES.
- ASPHALT SHALL NOT BE APPLIED WHEN THE WEATHER FORECAST CALLS FOR RAIN WITHIN 24 HOURS OF APPLICATION. ASPHALT SHALL NOT BE APPLIED WHEN THE AIR TEMPERATURE IS BELOW 50°F.
- ASPHALT MUCH OR HOTTER THAN 180°F. NO LARGER THAN ONE TON OF MULCH SHALL BE NEEDED TO ANCHOR STRAW OR HAY ON UNLEVEL SOILS AND CONCENTRATED FLOW AREAS. SMOKE MATERIALS SHALL BE INSTALLED AND MAINTAINED ACCORDING TO MANUFACTURER'S SPECIFICATIONS.
- USE ONLY THE APPROPRIATE SIZE SHALL BE USED TO ACCOMMODATE THE VALVE. OPENINGS OF THE VALVE MUST NOT BE SMALLER THAN THE AVERAGE SIZE FOR THE WOOD WASTE.

PLANTING

HYDRAULIC SEEDING

- MIX THE SEED (INNOCULATED IF NEEDED), FERTILIZER, AND WOOD CELLULOSE OR WOOD PULP FIBER MULCH WITH WATER AND APPLY IN A SLURRY UNIFORMLY OVER THE AREA TO BE TREATED.
- APPLY WITHIN ONE HOUR AFTER THE MIXTURE IS MADE.

CONVENTIONAL SEEDING

- SEEDING WILL BE DONE ON A FRESHLY PREPARED AND FIRMED SEEDBED.
- FOR BROADCAST PLANTING, USE A CULTIPACKER–SEEDER, DRAG, ROTARY HOECOM, OTHER MECHANICAL SEEDER, OR HAND RAKE. WORK SEED INTO THE SOIL TO A DEPTH OVER THE AREA TO BE TREATED.
- COVER THE SEED WITH 1/8 TO 1/4 INCH OF SOIL FOR SMALL SEED AND 1/2 TO 1 INCH FOR LARGE SEED WHEN USING A CULTIPACKER OR OTHER SUITABLE EQUIPMENT.

NO–TILL SEEDING

- NO–TILL SEEDING IS PERMISSIBLE INTO ANNUAL COVER CROPS WHEN PLANTING FOR GOOD FOLLOWING MATURITY OF THE COVER CROP OR IF THE TEMPORARY COVER STAND IS SPARSE. SEEDING TO ALLOW ADEQUATE GROWTH OF THE PERMANENT (PERENNIAL) SPECIES.
- NO–TILL SEEDING SHALL BE DONE WITH APPROPRIATE NO–TILL SEEDING EQUIPMENT.
- THE SEED MUST BE UNIFORMLY DISTRIBUTED AND PLANTED AT THE PROPER DEPTH.

INDIVIDUAL PLANTS

- SHRUBS, VINES AND SPRIGS MAY BE PLANTED WITH APPROPRIATE PLANTERS OR HAND TOOLS.
- PINE TREES SHALL BE PLANTED MANUALLY IN THE SUBSOIL FURROW.
- EACH PLANT SHALL BE SET IN A MANNER THAT WILL AVOID CROWDING THE ROOTS.
- OTHER PERENNIALS, ARE SLOW TO BECOME ESTABLISHED AND SHOULD BE PLANTED WITH ANOTHER PERENNIAL SPECIES (E.G. BAHIA GRASS AND SERICEA LESPEDEZA).
- PLANTING WITH COMPANION SPECIES WILL PROVIDE QUICK COVER AND AMPLE SOIL PROTECTION WITH THE TARGET PERENNIAL SPECIES BECOMES ESTABLISHED.

COMMON SEEDING COMBINATIONS ARE:

1. WEEPING LOVEGRASS WITH SERICEA LESPEDEZA (INCARNATUS).
2. BAHIA WITH SERICEA LESPEDEZA (UNSCARIFIED).
3. PLANT SELECTION MAY ALSO INCLUDE COMMON BERMUDA GROVE, ZOYSIA, CENTIPEDE GROVE, OR BAHIA GRASS ONLY WHEN ENVIRONMENTAL SPECIES ARE PLANTED. WHEN THESE GROWTHS ARE PLANTED, THEY SHALL BE PLANTED WITH COMMON BERMUDA (hulled).

- DATES AND RATES FOR SEEDING COMBINATIONS OF SPECIES ARE SHOWN IN TABLE 6–4.1. THESE MIXTURES WILL COMPETE WELL WITH WEEDS, DEVELOPMENTS, AND GROWING.
- A HIGH SEEDING RATE OF THE COMPANION CROP MAY INTERFERE WITH THE GROWTH OF THE PERENNIAL SPECIES.
- BYCROSS SHALL NOT BE USED IF ANY SEEDING MIXTURES CONTAINING PERENNIAL GRASS AND LEGUMES ONLY. BUT–COMPETE PERENNIAL SPECIES CHOSEN FOR PERMANENT VEGETATION.

SEED QUALITY (PLS)

- THE TERM "PURE LIVE SEED" IS USED TO EXPRESS THE QUALITY OF SEED AND IS NOT SHOWN ON THE LABEL.
- PURE LIVE SEED (PLS) IS EXPRESSED AS A PERCENTAGE OF THE SEED THAT ARE ALIVE AND WILL GERMINATE.
- INFORMATION ON PERCENT GERMINATION AND PURITY CAN BE FOUND ON SEED TAGS.
- PLS IS DETERMINED BY MULTIPLYING THE PERCENT OF PURE SEED WITH THE PERCENT OF GERMINATION

I.E.: (PLS = % GERMINATION X % PURITY)

EXAMPLE:

COMMON BERMUDA SEED
TEST GERMINATION: 85%
PURITY: 90%

PLS = 76% GERMINATION X 90% PURITY

PLS = 76%

- THE PERCENT OF PLS HELPS YOU DETERMINE THE AMOUNT OF SEED YOU NEED BY DIVIDING THE APPLICATION RATE BY THE PLS AND TIMES 100.

I.E.: (BULK RATE = APPLICATION RATE ÷ PLS X 100)

EXAMPLE:

IF THE SEEDING RATE IS 10 POUNDS AND THE PLS IS 66 %, THE BULK APPLICATION RATE IS:

10 LBS./ACRE ÷ 66% PLS X 100 = 17.9 LBS/ACRE

YOU WOULD NEED TO APPLY 17.9 LBS/ACRE TO PROVIDE 10 LBS/ACRE OF PURE LIVE SEED.

- APPLICATION RATES SHOULD NOT ACCOUNT FOR INCREASED NEEDED DUE TO PLS.
- ACTUAL APPLICATION RATES REQUIRED ON SITE WILL NEED TO BE ADJUSTED BASED ON SEED BAGS BEING USED.

INNOCULANTS

- ALL LEGUME SEED SHALL BE INOCULATED WITH APPROPRIATE NITROGEN–FIXING BACTERIA. THE INNOCULANT SHALL BE A PURE CULTURE PREPARED SPECIFICALLY FOR THE SEED SPECIES AND USED WITHIN THE DATES ON THE CONTAINER.
- A MEDIUM SPECIFIED RECOMMENDED BY THE MANUFACTURER SHALL BE USED TO BIND THE INNOCULANT TO THE SEED. FOR CONVENTIONAL SEEDING, USE TWICE THE AMOUNT OF INNOCULANT RECOMMENDED BY THE MANUFACTURER. FOR HYDRAULIC SEEDING, FOUR TIMES THE AMOUNT OF INNOCULANT RECOMMENDED BY THE MANUFACTURER SHALL BE USED.
- ALL INNOCULANTS SHALL BE PROTECTED FROM THE SUN AND HIGH TEMPERATURES AND SHALL BE PLANTED THE SAME DAY INNOCULATED. NO INNOCULATED SEED SHALL REMAIN IN THE HYDROSEEDER LONGER THAN ONE HOUR.

MAINTENANCE

- RE–SEED AREAS WHERE AN ADEQUATE STAND OF VEGETATION FAILS TO EMERGE OR WHERE A POOR STAND EXISTS.
- ENSURE MINIMUM OF 70% COVERAGE OF ALL EXPOSED EARTH AREAS IN ORDER TO ACHIEVE FINAL STABILIZATION.
- APPLY ONE TON OF AGRICULTURAL LIME EVERY 6–8 YEARS OR AS INDICATED BY SOIL TESTS.
- FERTILIZE IN ACCORDANCE WITH SOIL TESTS OR AS SHOWN IN TABLE 6–5.1 FOR SEEDING YEAR AND MAINTENANCE RATES.
- MOW BERMUDA AND BAHIA AS DESIRED. MOW SERICEA LESPEDEZA ONLY AFTER FROST TO ENSURE SEEDS ARE MATURE.
- MAINTAIN 6" OR MORE OF TOP GROWTH. NOTE: THAT MOWING TOO CLOSE IS HARMFUL TO STUNT ROOT GROWTH FOR A PERIOD OF TIME.
- IRRIGATION WILL BE APPLIED AT A RATE THAT WILL NOT CAUSE RUNOFF.

PLANT SELECTION

- REFER TO TABLES 6–4.1, 6–5.2, 6–5.3 AND 6–5.4 FOR APPROPRIATE SPECIES.
- SPECIES NOT LISTED SHALL BE APPROVED BY THE STATE RESOURCE CONSERVATIONIST OF THE NATURAL RESOURCES CONSERVATION SERVICE BEFORE THEY ARE USED.
- PLANTS SHALL BE SELECTED ON THE BASIS OF SPECIES CHARACTERISTICS, SITE CONDITIONS, PLANNED USE AND MAINTENANCE OF THE AREA, TIME OF YEAR OF PLANTING, METHOD OF PLANTING, AND THE NEEDS AND DESIRES OF THE LAND USER.
- SOME ORNAMENTAL SPECIES ARE EASILY ESTABLISHED AND CAN BE PLANTED ALONE (e.g. COMMON BERMUDA, TALL FESCUE, AND ZOYSIA LOVEGRASS).
- OTHER PERENNIALS, ARE SLOW TO BECOME ESTABLISHED AND SHOULD BE PLANTED WITH ANOTHER PERENNIAL SPECIES (E.G. BAHIA GRASS AND SERICEA LESPEDEZA).
- PLANTING WITH COMPANION SPECIES WILL PROVIDE QUICK COVER AND AMPLE SOIL PROTECTION WITH THE TARGET PERENNIAL SPECIES BECOMES ESTABLISHED.

COMMON SEEDING COMBINATIONS ARE:

1. WEEPING LOVEGRASS WITH SERICEA LESPEDEZA (INCARNATUS).
2. BAHIA WITH SERICEA LESPEDEZA (UNSCARIFIED).
3. PLANT SELECTION MAY ALSO INCLUDE COMMON BERMUDA GROVE, ZOYSIA, CENTIPEDE GROVE, OR BAHIA GRASS ONLY WHEN ENVIRONMENTAL SPECIES ARE PLANTED. WHEN THESE GROWTHS ARE PLANTED, THEY SHALL BE PLANTED WITH COMMON BERMUDA (hulled).

- DATES AND RATES FOR SEEDING COMBINATIONS OF SPECIES ARE SHOWN IN TABLE 6–4.1. THESE MIXTURES WILL COMPETE WELL WITH WEEDS, DEVELOPMENTS, AND GROWING.
- A HIGH SEEDING RATE OF THE COMPANION CROP MAY INTERFERE WITH THE GROWTH OF THE PERENNIAL SPECIES.
- BYCROSS S