QUALIFIED PRODUCTS POLICY FOR PRE-BLENDED PERMANENT SEED MIXTURES QUALIFIED PRODUCTS LIST 88

This policy covers pre-blended permanent seed mixtures for use as permanent cover. Only use the products that appear on *Qualified Products List 88* by the SCDOT Office of Materials and Research. Refer to the SCDOT Supplemental Specification for Seeding SCDOT (SC-M-810-3) or latest revision for pre-blended permanent seed mixture material requirements. Prior to inclusion on *SCDOT Qualified Product List 88* provide the Office of Materials and Research (OMR) with the following information from the manufacturer:

- All seed must conform to all state laws and all requirements and regulations of the South Carolina Department of Agriculture (SCDA). Seeds containing species designated by the State Crop Pest Commission as a plant pest (i.e., noxious weeds) are not permitted.
- Use seed that is individually packaged or bagged and tagged. Each tag must clearly state:
 - Name of company or responsible party for analysis (seller or grower)
 - Net weight of each seed type
 - Botanical name of each seed type
 - Common name of each seed type
 - Variety of each seed type
 - o Lot number of each seed type
 - o Percent purity (pure seed) of each seed type
 - Percent germination of each seed type $\geq 80\%$
 - o Percent by weight of other crop seed
 - Percent by weight of inert matter
 - Percent by weight of common (non-noxious) weed seed \leq 1.0% or 99.0% weed free
 - Origin of each seed type
 - Date of packaging or date tested (must be within 9 months of the seed application)
 - Certification that the Seed mix contains appropriate percentages of each seed type under the specific conditions as required by this QPP and specifications.
- Manufactures may submit for each of the following pre-blended permanent seed mixtures:
 - o Upper State & Lower State Spring/Summer Road Median & Shoulders Mix
 - o Upper State Fall/Winter Road Median & Shoulders Mix
 - o Lower State Fall/Winter Road Median & Shoulders Mix
 - Upper State Spring/Summer Slope Mix
 - o Upper State Fall/Winter Slope Mix
 - Lower State Spring/Summer Slope Mix
 - o Lower State Fall/Winter Slope Mix

Submit request for qualification to:

G. Michael Lockman Geotechnical Materials Engineer SCDOT Office of Materials and Research PO Box 191 Columbia, SC 29202 (803) 737-6692

QUALIFIED PRODUCTS POLICY 88

AUGUST, 2015

Road Median & Shoulders

Uppper & Lower State Spring / Summer Road Median & Shoulders Mix (during establishment, mow when Millet reaches 18 to 24 inches in height)

			Planting	Planting					Pla	ntinç	y Dat	tes					
	Common Name⁴	Botanical Name	Rate (Ibs/acre)	Rate (Ibs/1000sf)	Jan	Feb	Mar	Apr	May	Jun	Inf	Aug	Sep	Oct	Nov	Dec	Characteristics
	non Bermudagrass ¹ d = hull absent)	Cynodon dactylon	50	1.15				•	•	•	•	•	•				Long-lived, warm season perennial, grows 4-6 inches tall. High heat tolerance, salt tolerant, high nitrogen requirement.
Brown	ntop Millet ³	Panicum ramosum	10	0.23				•	•	•	•	•	•				Bunch type grain, grows 2-5 feet tall. Full sun, moderate drought tolerance, high salt tolerance.
White	e Clover ²	Trifolium repens	5	0.11				•	•	•	•	•	•				Grows to 1 foot tall. Full sun, low drought tolerance, low salt tolerance. Good erosion control cover.

*Bahiagrass: For Lower State, at the discretion of the RCE, add 30 lbs/acre of Bahigrass (Paspalum notatum) to this mix

Uppper State Fall / Winter Road Median & Shoulders (during establishment, mow when Rve reaches 18 to 24-inches in height)

		Planting	Planting					Pla	ntinç	y Da	tes					
Common Name ⁴	Botanical Name	Rate (Ibs/acre)	Rate (Ibs/1000sf)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Characteristics
Tall Fescue (KY-31)	Festuca aruninacea	75	1.72	•	•	•	•					•	•	•	•	Bunch-type grass, grows 2-4 feet tall. Full sun to part shade. Good heat and drought tolerance as well as shade tolerance. Tolerant to marginal, acidic, and poorty drained soils and in areas of low fertility.
Common Bermudagrass ¹ (unhulled = hull present)	Cynodon dactylon	15	0.34	•	•	•	•					•	•	•	•	Long-lived, warm season perennial, spreads by rhizomes/stolons seed, grows 4-6 inches tall. High heat tolerance, salt tolerant, high nitrogen requirement.
Crimson Clover ²	Trfolium incarnatum	20	0.46	•	•	•	•					•	•	•	•	Upright winter legume, grows from 1-3 feet tall. Full sun, low drought tolerance, no salt tolerance.
White Clover ²	Trifolium repens	5	0.11	•	•	•	•					•	•	•	•	Grows to 1 foot tall. Full sun, low drought tolerance, low salt tolerance. Good erosion control cover.
Rye Grain ³	Secale cereale	15	0.34	•	•	•	•					•	•	•	•	Bunch type grain, grows 2-5 feet tall. Full sun, moderate drought tolerance, high salt tolerance.

Lower State Fall / Winter Road Median & Shoulders Mix (during establishment, mow when Rye reaches 18 to 24 inches in height)

			Planting	Planting					Pla	antin	ıg Da	ites					
	Common Name⁴	Botanical Name	Rate (Ibs/acre)	Rate (Ibs/1000sf)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Characteristics
Ø	Common Bermudagrass ¹ (unhulled = hull present)	Cynodon dactylon	60	1.38	•	•	•	•					•	•	•	•	Long-lived, warm season perennial, spreads by rhizomes/stolons seed, grows 4-6 inches tall. High heat tolerance, salt tolerant, high nitrogen requirement.
	Crimson Clover ²	Trfolium incarnatum	20	0.46	•	•	•	•					•	•	•	•	Upright winter legume, grows from 1-3 feet tall. Full sun, low drought tolerance, no salt tolerance.
J	White Clover ²	Trifolium repens	5	0.11	•	•	•	•					•	•	•	•	Grows to 1 foot tall. Full sun, low drought tolerance, low salt tolerance. Good erosion control cover.
Ø	Rye Grain ³	Secale cereale	40	0.92	•	•	•	•					•	•	•	•	Bunch type grain, grows 2-5 feet tall. Full sun, moderate drought tolerance, high salt tolerance.

¹ Common Bermudagrass: Do not use Giant Bermudagrass(NK-37).

² Only use pre-inoculated legumes or use an appropriate inoculant with the seed at planting.

³ Mow Millet and Rye Grain (no lower than 3 inches) once it reaches a height of 18-24 inches to reduce competitiveness with permanent vegetation.

⁴ If the Common Name of the seed listed in the Tables is not available, use seed with the listed Botanical Name.

*April and September are considered transitional months. Contractor can select either the Spring / Summer seeding mix or Winter / Fall seeding mix depending on current weather trends.

QUALIFIED PRODUCTS POLICY 88

AUGUST, 2015

Slopes

Uppper State Spring / Summer Slope Mix (during establishment, mow when Millet reaches 18 to 24 inches in height. After establishment, only mow at end of winter season)

				Planting					Pla	Intin	g Da	tes					
	Common Name ⁴	Botanical Name	Rate (Ibs/acre)	Rate (Ibs/1000sf)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Characteristics
	Tall Fescue (KY-31)	Festuca aruninacea	50	1.15				•	•	•	•	•	•				Bunch-type grass, grows 2-4 feet tall. Full sun to part shade. Good heat and drought tolerance as well as shade tolerance. Tolerant to marginal, acidic, and poorly drained soils and in areas of low fertility.
	Common Bermudagrass ¹ (hulled = hull absent)	Cynodon dactylon	25	0.57				•	•	•	•	•	•				Long-lived, warm season perennial, grows 4-6 inches tall. High heat tolerance, high nitrogen requirement.
۲	White Clover ²	Trifolium repens	5	0.11				•	•	•	•	•	•				Grows to 1 foot tall. Full sun, low drought tolerance, low salt tolerance. Good erosion control cover.
Ø	Weeping Lovegrass	Erograstis curvula	10	0.23				•	•	•	•	•	•				Warm season bunch grass, grows 3 feet tall. Full sun, high drought tolerance. Plant at 10%-20% of mix.
	Hairy Vetch ²	Vicia villosa	10	0.23				•	•	•	•	•	•				Cool season biennial or annual legume. Viney, trailing or climbing growth. Wide range of soil types, best adapted to loamy and sandy soils.
	Browntop Millet ³	Panicum ramosum	10	0.23				•	•	•	•	•	•				Bunch type grain, grows 2-5 feet tall. Full sun, moderate drought tolerance.

Upper State Fall / Winter Slope Mix (during establishment, mow when Rye reaches 18 to 24-inches in height. After establishment, only mow at end of winter season)

			Planting	Planting					P	lanti	ng D	Dates						
	Common Name ⁴	Botanical Name	Rate (Ibs/acre)	Rate (Ibs/1000sf)	Jan	Feb	Mar	Apr	Mav)un	In P	Aug	Sep	Oct	Nov		Dec	Characteristics
۲	Tall Fescue (KY-31)	Festuca aruninacea	50	1.15	•	•	•	•	•				•	•	•	•	•	Bunch-type grass, grows 2-4 feet tall. Full sun to part shade. Good heat and drought tolerance as well as shade tolerance. Tolerant to marginal, acidic, and poorly drained soils and in areas of low fertility.
۲	Common Bermudagrass ¹ (unhulled = hull present)	Cynodon dactylon	15	0.34	•	•	•	•	•				•	•	•	•	•	Long-lived, warm season perennial, grows 4-6 inches tall. High heat tolerance, high nitrogen requirement.
	White Clover ²	Trifolium repens	5	0.11	•	•	•	•	•				•	•	•	•	•	Grows to 1 foot tall. Full sun, low drought tolerance, low salt tolerance. Good erosion control cover.
J	Weeping Lovegrass	Erograstis curvula	10	0.23	•	•	•	•	•				•	•	•	•	•	Warm season bunch grass, grows 3 feet tall. Full sun, high drought tolerance.
ž	Crimson Clover ²	Trfolium incarnatum	20	0.46	•	•	•	•	•				•	•	•	•	•	Upright winter legume, grows from 1-3 feet tall. Full sun, low drought tolerance, no salt tolerance.
Pick	Hairy Vetch ²	Vicia villosa	10	0.23	•	•	•	•	•				•	•	•	•	•	Cool season biennial or annual legume. Viney, trailing or climbing growth. Wide range of soil types, best adapted to loamy and sandy soils.
2	Rye Grain ³	Secale cereale	15	0.34	•	•	•	•	•				•	•	•	•	•	Bunch type grain, grows 2-5 feet tall. Full sun, moderate drought tolerance, high salt tolerance.

¹ Common Bermudagrass: Do not use Giant Bermudagrass(NK-37).

² Only use pre-inoculated legumes or use an appropriate inoculant with the seed at planting.

³ Mow Millet and Rye Grain (no lower than 3 inches) once it reaches a height of 18-24 inches to reduce competitiveness with permanent vegetation.

⁴ If the Common Name of the seed listed in the Tables is not available, use seed with the listed Botanical Name.

*April and September are considered transitional months. Contractor can select either the Spring / Summer seeding mix or Winter / Fall seeding mix depending on current weather trends.

Slopes (Continued)

Lower State Spring / Summer Slope Mix (during establishment, mow when Millet reaches 18 to 24 inches in height. After establishment, only mow at end of winter season)

			Planting	Planting					Pla	Intin	g Da	tes					
	Common Name ⁴	Botanical Name	Rate (Ibs/acre)	Rate (lbs/1000sf)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Characteristics
	Common Bermudagrass ¹ (hulled = hull absent)	Cynodon dactylon	50	1.15				•	•	•	•	•	•				Long-lived, warm season perennial, grows 4-6 inches tall. High heat tolerance, high nitrogen requirement.
Ø	White Clover ²	Trifolium repens	5	0.11				•	•	•	•	•	•				Grows to 1 foot tall. Full sun, low drought tolerance, low salt tolerance. Good erosion control cover.
Ø	Weeping Lovegrass	Erograstis curvula	5	0.11				•	•	•	•	•	•				Warm season bunch grass, grows 3 feet tall. Full sun, high drought tolerance. Plant at 10%-20% of mix.
	Browntop Millet ³	Panicum ramosum	10	0.23				•	•	•	•	•	•				Bunch type grain, grows 2-5 feet tall. Full sun, moderate drought tolerance.

*Bahiagrass: For Lower State, at the discretion of the RCE, add 30 lbs/acre of Bahigrass (Paspalum notatum) to this mix

¹ Common Bermudagrass: Do not use Giant Bermudagrass(NK-37).

² Only use pre-inoculated legumes or use an appropriate inoculant with the seed at planting.

³ Mow Millet and Rye Grain (no lower than 3 inches) once it reaches a height of 18-24 inches to reduce competitiveness with permanent vegetation.

⁴ If the Common Name of the seed listed in the Tables is not available, use seed with the listed Botanical Name.

*April and September are considered transitional months. Contractor can select either the Spring / Summer seeding mix or Winter / Fall seeding mix depending on current weather trends.

	Common Name ⁴ Botanical Name			Planting													
	Common Name ⁴		Rate (Ibs/acre)	Rate (Ibs/1000sf)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Characteristics
Ø	Common Bermudagrass ¹ (unhulled = hull present)	Cynodon dactylon	60	1.38	•	•	•	•					•	•	•	•	Long-lived, warm season perennial, grows 4-6 inches tall. High heat tolerance, high nitrogen requirement.
3	White Clover ²	Trifolium repens	5	0.11	•	•	•	•					•	•	•	•	Grows to 1 foot tall. Full sun, low drought tolerance, low salt tolerance. Good erosion control cover.
	Weeping Lovegrass	Erograstis curvula	5	0.11	•	•	•	•					•	•	•	•	Warm season bunch grass, grows 3 feet tall. Full sun, high drought tolerance.
ž	Crimson Clover ²	Trfolium incarnatum	20	0.46	•	•	•	•					•	•	•	•	Upright winter legume, grows from 1-3 feet tall. Full sun, low drought tolerance, no salt tolerance.
Pic	Hairy Vetch ²	Vicia villosa	10	0.23	•	•	•	•					•	•	•	•	Cool season biennial or annual legume. Viney, trailing or climbing growth. Wide range of soil types, best adapted to loamy and sandy soils.
	Rye Grain ³	Secale cereale	30	0.69	•	•	•	•					•	•	•	•	Bunch type grain, grows 2-5 feet tall. Full sun, moderate drought tolerance, high salt tolerance.

Lower State Fall / Winter Slope Mix (during establishment, mow when Rye reaches 18 to 24-inches in height. After establishment, only mow at end of winter season)

¹ Common Bermudagrass: Do not use Giant Bermudagrass(NK-37).

² Only use pre-inoculated legumes or use an appropriate inoculant with the seed at planting.

³ Mow Millet and Rye Grain (no lower than 3 inches) once it reaches a height of 18-24 inches to reduce competitiveness with permanent vegetation.

⁴ If the Common Name of the seed listed in the Tables is not available, use seed with the listed Botanical Name.

*April and September are considered transitional months. Contractor can select either the Spring / Summer seeding mix or Winter / Fall seeding mix depending on current weather trends.