



# NRCS Jamie L. Whitten Plant Materials Center 2023 Progress Report of Activities

## Planting and Termination Date Effect on Aboveground Plant Performance of Four Cool Season Grass Cover Crops

Annual cool season grass cover crops can provide multiple benefits to production agriculture such as controlling soil erosion, suppressing weeds, reducing fertilizer costs, and improving yields. However, the success of an annual cool season grass is dependent on choosing proper planting and termination dates so the cover crop will meet the planting objective. The purpose of this study was to evaluate the performance of four annual cool season grass species based on planting and termination date combinations to identify best practices for cover cropping standards. Black-seeded oats (*Avena sativa* L.), cereal rye (*Secale cereale* L.), winter wheat (*Triticum aestivum* L.), and winter triticale (*Secale x Triticum* L.) were evaluated at the Jamie L. Whitten Plant Materials Center near Coffeeville, MS in 2020-2021 and 2021-2022 for emergence 28 days after planting (DAP), soil cover in February and at termination, aboveground dry matter yield, and nitrogen concentration at termination. Black-seeded oats planted between September 15 and October 15 had higher emergence scores 28 DAP, soil cover in February, and dry matter yields compared to November plantings. If black-seeded oats are planted in November termination should be delayed until April 15. Cereal rye planted on October 1 and October 15 had higher emergence scores 28 DAP, soil cover in February, and dry matter yields compared to November plantings. If cereal rye is planted in November termination should be delayed until April 15. Winter triticale planted on September 15 and October 1 had above average emergence scores 28 DAP, soil cover in February, and dry matter yields compared to November plantings. If winter triticale is planted in November termination should be delayed until April 15. Winter wheat planted between September 15 and October 15 had higher emergence scores 28 DAP, soil cover in February, and dry matter yields compared to November. If winter wheat is planted in November termination should be delayed until April 15.

### Publications Associated with this Study:

- [Planting and Termination Date Effect on Aboveground Plant Performance of Four Cool Season Grass Cover Crops](#)
- [‘30-60’ Winter Wheat \(\*Triticum aestivum\* L.\): When to Plant and Terminate in the Mid-South?](#)
- [‘Elbon’ Cereal Rye \(\*Secale cereale\* L.\): When to Plant and Terminate in the Mid-South?](#)
- [‘Cosaque’ Black Oats \(\*Avena sativa\* L.\): When to Plant and Terminate in the Mid-South?](#)
- [‘SF-813’ Winter Triticale \(\*Secale X Triticum\* L.\): When to Plant and Terminate in the Mid-South?](#)

## Jamie L. Whitten Plant Materials Center Plant & Seed Production

NRCS releases plants for natural resource conservation and revegetation activities through its PMCs. To ensure the availability of releases, PMCs produce Breeder and Foundation materials for cultivars or early generation germplasm materials of pre-variety releases for allocation to seed certifying organizations and/or commercial growers for establishment of seed fields and orchards for large-scale increase. The Jamie L. Whitten PMC currently maintains four releases for seed and/or plant production. Seed for these releases can be acquired through [MAFES Foundation Seed Stock](#). We can also provide technical assistance for these plant releases.

## Updated Plant Release Brochures

- [Release Brochure for ‘Chiwapa’ Billion-dollar Grass](#)
- [Release Brochure for ‘Lark Selection’ Partridge Pea](#)
- [Release Brochure for ‘Halifax’ Maidencane](#)

## Publications, Presentations, Outreach, & Trainings

- [Progress Report of Activities – 2022](#)
- [Mid-South Plant News Summer Newsletter – 2023](#)
- Water Valley Town & Country Garden Club – presentation on MS PMC history, mission, and activities.
- Cover Crop Training – provided cover crop training at each MS NRCS Area office in conjunction with MS Ecological Sciences staff.
- MS NRCS Area 1 Cover Crop Training – in field cover crop training at the PMC. This was a follow up training to classroom training the previous fall.
- Provided 2 days of ROV training for West TN NRCS staff.

## Jamie L. Whitten Plant Materials Center Recognized by Plant Materials Program

The PMC was awarded The Plant Materials Outstanding Team Award in March 2023. This award is a great recognition for all the hard work the PMC has accomplished over the last few years. This award would not be possible without a great staff and support from MS NRCS.

We would like to thank Mr. Rogerick Thompson, MS NRCS Resource Conservationist, and the MS NRCS State Office for their support of the PMC. We would also like to thank Lou Andrews and Greg Swain, MS NRCS Area Agronomist, for all the help harvesting cover crop plots the last few years.



**The Plant Materials Outstanding Team Award**

## **The Jamie L. Whitten Plant Materials Center**

The Jamie L. Whitten Plant Materials Center (MSPMC) works with NRCS field offices and land managers in Mississippi, Louisiana, Alabama, Arkansas, Kentucky, Missouri, and Tennessee. The MSPMC provides vegetative solutions for soil health, pastureland improvement, cropland erosion, critical area erosion control, urban conservation, wildlife habitat enhancement, and water quality improvement. The center also releases improved conservation plants addressing resource challenges such as wetland mitigation, erosion control, riparian buffers, and wildlife habitat.

### **Jamie L. Whitten PMC Staff**

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