Wildflower Seed Production at the Jamie L. Whitten Plant Materials Center

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Interest in incorporating wildflowers into public and private plantings is burgeoning. However, seed that is adapted to local conditions is not always available in sufficient quantities from commercial sources. The Jamie L. Whitten Plant Materials Center (PMC) has a memorandum of understanding with the Mississippi Soil and Water Conservation Commission to produce local ecotypes of wildflower seed for use by conservation districts. Currently available species include, black-eyed susan (Rudbeckia hirta L.), clasping coneflower [Dracopis amplexicaulis (Vahl) Cass.], plains coreopsis (Coreopsis tinctoria Nutt.), partridge pea [Chamaecrista fasciculata (Michx.) Greene], bur marigold [Bidens aristosa (Michx.) Britt.], and lyre-leaf sage (Salvia lyrata L.). Swamp rose mallow [Hibiscus moscheutos ssp. lasiocarpos (Cav.) O.J. Blanchard], cardinal flower (Lobelia cardinalis L.), purple coneflower [Echinacea purpurea (L.) Moench], and meadow beauty (Rhexia mariana L.) are being increased or are in small-scale production. General field establishment practices include burning the field to remove residue in mid to late summer, disking to incorporate ash residue, cultipacking to firm the soil, broadcasting seed on the soil surface in August to September, and then cultipacking again to ensure good seed-to-soil contact. Wildflower seed is not planted in rows and cultivated, because previous experience at the PMC has shown that these plants cannot tolerate root disturbance and soil deposition around the plant crown caused by cultivation. Herbicides are used when possible for weed control, mainly Poast Plus® (sethoxydim) for grass control and Roundup® (glyphosate) for pre-plant or postharvest cleanup of annual wildflowers. Plateau® (imazameth) is labeled for use on several wildflowers and is being incorporated into the production scheme of appropriate species. Seed is harvested using a conventional combine, cleaned using air-screen cleaners, and stored in a cooler at 13°C and 45% RH. Detailed information on harvesting and cleaning techniques will be compiled into a document to be published by the PMC.