# Switchgrass germplasm: Status and utilization for bioenergy and forage. (C08-vogel110818-Oral)

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## Abstract:

Switchgrass (Panicum virgatum L.) is a native warm-season perennial grass that was native to prairies and grasslands of North America. It has been identified as a primary biomass energy species and is being increasingly used for pasture. Access to germplasm is critical to the expanding use of this grass. Although much of the prairies were plowed and converted to cropland, numerous remnant prairies are being preserved by public and private organizations. Preserved prairies serve as in situ germplasm sources. Switchgrass is cross-pollinated by wind and is largely self incompatible which makes purity maintenace during seed increase and regeneration difficult. It also has two ploidy levels and ecotypes (lowland and upland) which represent two distinct heterosis groups. Crosses between ploidy groups usually do not produce viable seed. Germplasm composite populations representing ecoregions and plant hardiness zones may be the most effective method of preserving and utilizing switchgrass germplasm. Separate lowland and upland composities need to be maintained. Geneticists are in the process of developing and releasing composite germplasms for use in future breeding programs.

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