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Forage Performance Trials at Feldun-Purdue Ag Center

Ben Carter, Research Agronomist-Forages
Department of Agronomy, Purdue University

Purdue University is involved in the evaluation of different alfalfa varieties, and grass species or varieties at Feldun-Purdue Ag Center. This program is offered to the seed industry and public as an unbiased source of agronomic information. The hay producer can use this to make a decision on which alfalfa or grass will potentially yield best for them.

Participating seed companies select the entries to be tested. Seed is sent to Purdue University for planting and evaluation. Commercial alfalfa entries are obtained through a seed procurement program initiated by the recommendation of the North American Alfalfa Improvement Conference. Experimental entries (i.e. experimental generations) from companies sent to Purdue are accepted into yield tests, with data to be clearly marked as from a non-commercial entry.

Between 1996 and 1998 Purdue University successfully established alfalfa and grass performance trials at Feldun-Purdue Ag Center, Bedford. The studies are on a Muren silt loam (1-3% slope) soil, formed from loess. Test plots were seeded into conventionally prepared seedbeds. With the alfalfa trials, benefin (Balan) herbicide was incorporated into the soil prior to seeding. Alfalfa seed was inoculated with *Rhizobium* bacteria and treated with metalaxyl (Apron) fungicide. Plots were seeded with a five-row press-wheel seeder with 6-inch row spacing.

Best management practices were administered to all studies. Optimum pH and fertility were provided and maintained. Alfalfa weevil and potato leafhopper are controlled with the systemic insecticides carbofuran (Furadan), and Cyfluthrin (Bathyroid 2) or dimethoate (Cygon). When appropriate, control of broadleaf or grass weeds was accomplished with application of 2,4D-B (Butyrac), sethoxydim (Poast) and/or imazethapyr (Pursuit) herbicides. Winter-annual weeds were controlled on new and established alfalfa stands with an application of pronamide (Kerb) and metribuzin (Sencor) herbicides, respectively. A flail-type forage harvester was used to harvest plots, generally in late-bud to early-flower stage for alfalfa and prior to seed development for the grasses. Hand samples were utilized for dry matter determination.

The Feldun-Purdue Ag Center is one of five locations in the state of Indiana where alfalfa trials are conducted; it is the only location with grass trials. The results of last year's tests are published in B-779, Performance of Alfalfa In Indiana, 1995-1998. The new grass bulletin will be published this fall. These are available through the local Cooperative Extension Service Office.

Other alfalfa trials are at the:

Pinney Purdue Agricultural Center near Wanatah in Porter and LaPorte Counties

Northeast Purdue Agricultural Center near Columbia City in Whitley County

Purdue Agronomy Research Center near West Lafayette in Tippecanoe County

Southeast Purdue Agricultural Center near Butlerville in Jennings County.