

FIELD PERFORMANCE EVALUATIONS OF DOW AGROSCIENCES GLYPHOSATE FORMULATIONS ON HERBACEOUS WEEDS AND BRUSH. W.N. Kline and P.L. Burch; Dow AgroSciences, LLC, Indianapolis, Indiana 46268.

ABSTRACT

Glyphosate is one of the most widely used and researched herbicides in the world. DAS has formulated 2 glyphosate products which are being marketed in the Vegetation & Crops/Industrial Vegetation Management Businesses. Field trials were established in Georgia and Virginia during 1999 and 2000 to confirm comparative efficacy between DAS glyphosate products and industry standards.

The following questions were addressed in the trials. 1) Does Dow AgroScience formulation of glyphosate, Glypro Plus**** (formulated with surfactant), provide equivalent efficacy to industry standards on weeds and grasses? 2) Does Glypro* (Dow AgroScience glyphosate formulation without surfactant) alone or combined with Arsenal Herbicide, perform equivalent to the industry standard, Accord or Accord + Arsenal on brush species?

Broadleaf weed and grass field trial comparisons between Monsanto glyphosate formulations Roundup Pro & Roundup vs DAS Glypro Plus formulations did not show any significant differences at any of the rates evaluated. Consistent and similar results were demonstrated between DAS and Monsanto formulations when comparisons were made between equivalent rates - 0.25 lbs, 1.0 lb, 3.0 lbs per acre in trials established in 1999 and again in 2000. Based upon extensive DAS internal and contract field research trials, DAS glyphosate formulations can be considered equivalent to Monsanto formulations when used on herbaceous weeds and grasses.

Brush control comparisons between DAS glyphosate formulations vs industry standard formulations were summarized at 1 YAT from brush trials established in 1999 in Georgia and Virginia. Rates of 2 lbs/acre and 4 lbs/acre of DAS glyphosate (Glypro Plus & Glypro) vs equivalent rates of Accord and Roundup Pro were compared; combination treatments of Glypro + Arsenal vs Accord + Arsenal were also evaluated in these trials.

Overall, when all species were combined over both locations (GA & VA), similar rates of all formulations provided comparable results; and the two combinations with Arsenal provided comparable results. Results from these trials did not demonstrate any statistically significant differences between formulations at equivalent rates.

Based upon field trials and commercial use to-date DAS formulations, Glypro Plus and Glypro can be considered equivalent to Monsanto formulations when used for brush control.

HERBACEOUS WEED CONTROL IMPROVES SURVIVAL OF PLANTED SHUMARD OAK SEEDLINGS ON MISSISSIPPI RIVER FLOODPLAIN SITES. J.D. Hodges and A.W. Ezell, Department of Forestry, Mississippi State University, Mississippi State, MS 39762.

ABSTRACT

Shumard oak seedlings were planted on a cutover site in the Mississippi River floodplain which had received both chemical and mechanical site preparation treatments. Soil at the site was a Commerce silt loam and the elevation was such that the area does not flood. Planting stock was 1-0, bareroot seedlings. A total of seven active herbicide treatments were applied at a preemergent timing over the top of the planted seedlings prior to the onset of the 1998 growing season. In addition, an untreated check was established and all treatments were replicated three times. Each plot consisted of 200 linear feet of planted row with 20 seedlings. Seedlings were tagged and flagged for measurement purposes. Competition control was evaluated at 30,60,90, and 120 days after treatment. At each evaluation timing, the seedlings were evaluated for any symptoms of herbicide damage. In November of 1998 and 1999, seedling survival was recorded. Overall, herbaceous competition control significantly increased seedling survival. Differences exist among treatments and between year of observation. Without herbaceous competition control, seedling survival and plantation establishment may be questionable in areas of severe weed pressure.

HERBACEOUS WEED CONTROL AND RESULTANT PINE SEEDLING GROWTH WITH NEW OUST, VELPAR, AND ESCORT FORMULATIONS: YEAR TWO RESULTS. R. Wood and J.L. Yeiser. Stephen F. Austin State University, Nacogdoches, TX 75962.

ABSTRACT

New extruded formulations of Oust, Velpar, and Escort in selected combinations and with Arsenal were tested in three studies in East Texas for loblolly pine seedling performance. Herbaceous weed control and year-one seedling survival and growth were presented previously. Droughts during 1999 and again in 2000 significantly influenced both seedling survival and growth. Seedling performance was similar for new and current formulations and conventional mixtures at comparable rates. Seedling survival and growth from treatments of Oustar, a new premix containing new Velpar DF and Oust XP, was similar to conventional formulations of Velpar L+Oust at comparable rates.

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