

A comparison of preplant incorporated herbicides for weed control in 'Dark Red' kidney beans. Millen, R. J.; W. M. Canevari, L. W. Mitich. A preplant incorporated weed control trial in 'Dark Red' kidney beans evaluating nine different herbicides and/or combination treatments was established at Lagorio Farms (George Lagorio and John Bertaina) just north of French Camp Road and east of Highway 99 near Stockton, California. The soil type was a Stockton adobe clay and all treatments were applied with a handheld CO₂ backpack sprayer and then mechanically incorporated 2"-3" deep with the growers' rolling cultivator two times (once in each direction up and down the rows). The trial was established on July 16, 1982 and the field was planted the same day. Ratings for chemical weed control effectiveness and crop safety were made August 6, 1982. Weeds present at rating time consisted only of yellow nutsedge. Overall, best weed control was achieved by Dual (metolachlor) by itself and also in combination with Treflan (trifluralin), followed closely by Lasso (alachlor) by itself. The combination of Sonalan (ethafluralin) and Dual (metolachlor) and a treatment of Eptan (EPTC) alone also gave good control of yellow nutsedge. All other treatments gave marginal weed control. All materials and rates tested showed excellent safety to the crop.

Herbicide	Lb/A	Formulation	% Control of Yellow Nutsedge	Vigor ^{1/}
trifluralin	0.75	4 EC	70.0	9.3
pendimethalin	0.75	4 EC	73.2	9.3
alachlor	3.0	4 EC	95.8	9.2
metolachlor	3.0	8 EC	98.2	9.2
ethafluralin	1.5	3 EC	63.2	9.2
diethatyl ethyl	4.0	4 EC	73.8	9.2
metolachlor + trifluralin	3.0 + 0.75	8 EC + 4 EC	98.2	9.2
UBI-S734	1.0	75 WP	73.8	9.1
EPTC	3.0	7 EC	83.0	9.2
ethafluralin + metolachlor	1.5 + 3.0	3 EC + 8 EC	87.5	9.2
pendimethalin	0.75	60 G	70.8	9.3
control	-	-	62.5	9.4

^{1/} Vigor ratings 10 = no crop injury, 1 = crop is dead.