

Benfluralin (Benefin) Use in California

Date: May 27, 2004

To: [Harold D. Coble](#)

Agronomist

USDA/ARS/OA

Office of Pest Management Policy

202 Frostwood Drive

Cary, NC 27511

Voice (919) 851-2621

From: [Rick Melnicoe](#)

Director, Western Region Integrated Pest Management Center

Subject: [Benfluralin \(Benefin\)](#)

Harold,

Attached is the [pesticide use report for benefin in California for 2002](#) (Excel chart). A relatively small amount was used on alfalfa. However, it is an important herbicide for lettuce. The following is quoted from the Iceberg Lettuce Crop Profile for California:

"Benefin - PHI is restricted by use as a preplant incorporated treatment. Typical PHI ranges from 60 to 110 days (4). Benefin is applied as a preplant incorporated treatment at a typical rate of 0.9 lb. a.i. per acre (6). The loss of this product would have serious economic impacts on the production of lettuce in the San Joaquin Valley and desert areas."

The Lettuce PMSP for Arizona and California has this to say about benefin:

"The effective and economical control of annual weeds in lettuce requires an integrated approach that includes cultural and mechanical methods, and the use of selective herbicides. Pronamide/propyzamide (Kerb) is the predominant herbicide used on lettuce along with benefin (Balan) and bensulide (Prefar)."

A regulatory priority from the Lettuce PMSP is, "Retain the registrations for pronamide/propyzamide (Kerb), benefin (Balan) and bensulide (Prefar)."

[Rick Melnicoe](#)

Director, Western Region Integrated Pest Management Center

Director, Office of Pesticide Information and Coordination (UC Statewide

Pesticide Coordinator) One Shields Avenue

4249 Meyer Hall (FedEx Deliveries only)

University of California

Davis, CA 95616-8588

Telephone: (530) 754-8378

FAX: (530) 754-8379

The production agricultural use of Benefin on all crops in California in 2002. The measures of use are described in the accompanying table.

Crop or Site	Num. of Fields	% Base Acres Treated	Base Acres Treated	Cum. Acres Treated	Total Lbs AI	Lbs AI/ acre treated			Num. apps	Num. Applications per treated field						
						Med rate	Min rate	Max rate		Med apps/ field	Min apps/ field	Max apps/ field	Num. WFE apps	Med WFE/ field	Min WFE/ field	Max WFE/ field
ALFALFA	42	0.26	2,416	2,416	2,960	1.20	1.20	1.48	43	1.00	1.00	1.00	38.23	1.00	0.12	1.00
CORN (FORAGE - FODDER)	1	0.01	50	50	60	1.20	1.20	1.20	1	1.00	1.00	1.00	1.00	1.00	1.00	1.00
CORN, HUMAN CONSUMPTION	1	0.00	1	1	1	1.20	1.20	1.20	1	1.00	1.00	1.00	0.06	0.06	0.06	0.06
LANDSCAPE MAINTENANCE	1	0.02	1	1	0	0.09	0.09	0.09	1	1.00	1.00	1.00	0.33	0.33	0.33	0.33
LETTUCE, HEAD	186	6.83	12,454	12,798	11,353	0.60	0.52	1.36	226	1.00	1.00	3.00	177.39	1.00	0.21	1.65
LETTUCE, LEAF	126	1.77	2,614	2,651	2,275	0.75	0.30	1.50	144	1.00	1.00	2.00	116.93	1.00	0.14	1.88
N-GRNHS FLOWER	1	0.02	1	1	0	0.00	0.00	0.00	1	1.00	1.00	1.00	0.02	0.02	0.02	0.02
N-GRNHS PLANTS IN CONTAINERS	4	0.13	4	5	1	0.01	0.01	0.01	8	2.00	2.00	2.00	1.28	0.07	0.02	0.12
N-OUTDR FLOWER	4	0.23	30	30	6	0.25	0.00	2.00	12	1.50	1.00	2.00	1.00	0.10	0.05	0.15
N-OUTDR PLANTS IN CONTAINERS	13	0.18	56	58	86	1.99	0.37	3.00	63	2.00	1.00	5.00	7.18	0.06	0.00	1.45
TOMATO	2	0.14	57	57	86	1.50	1.50	1.50	2	1.00	1.00	1.00	2.00	1.00	1.00	1.00
TOMATO, PROCESSING	4	0.04	116	116	139	1.20	1.20	1.20	4	1.00	1.00	1.00	4.00	1.00	1.00	1.00

Description of all columns used in the pesticide use table

"Num. of Fields" is the number of fields that were treated with an AI.

"% Base Acres Treated" is the percent of acres of crop planted, as calculated from the PUR, that were treated one or more times by each active ingredient (AI).

"Base Acres Treated" is the total number of acres planted that were treated one or more times by each AI.

"Cumulative Acres Treated" is the sum of the acres treated for each application even when the same area was treated more than once.

"Total Lbs AI" is the sum of pounds of each AI used on this crop.

"Med rate" is the median rate of all applications.

"Min rate" is the smallest rate after removing the lowest 2.5% of the rate values.

"Max rate" is the largest rate after removing the highest 2.5% of the rate values.

"Num. apps." is the number of applications of the AI in the crop. Applications of the same AI to the same field within 2 days is counted as one application.

"Med apps/field" is the median number of applications per field, taken over only fields treated with the AI.

"Min apps/field" is the smallest number of applications per treated field after removing the lowest 2.5% of values.

"Max apps/field" is the largest number of applications per treated field after removing the highest 2.5% of values.

"Num. WFE apps" is the number of "whole field equivalent (WFE)" applications. A WFE application is the acres treated divided by acres planted in that field.

"Med WFE/ field" is the median number of WFE applications per field, taken over all treated fields.

"Min WFE/ field" is the smallest number of WFE applications per treated field after removing the lowest 1.0% of values.

"Max WFE/ field" is the largest number of WFE applications per treated field after removing the highest 1.0% of values.