Benfluralin (Benefin) Use in California

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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)."

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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 Al | Med rate | Min rate | Max rate | Num. apps | 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           | 0.12           | 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          |               |
| 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          |               |
| LANDSCAPE MAINTENANCE                | 1              | 0.02                 | 1                 | 1                 | 0            | 1.20     | 0.99     | 0.09     | 1         | 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         | 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           | 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         | 2.00           | 1.00           | 0.10           | 0.05          | 0.15          |               |
| N-OUTDR PLANTS IN CONTAINERS         | 13             | 0.18                 | 56                | 58                | 88           | 1.99     | 0.37     | 3.00     | 63        | 2.00         | 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           | 2.00           | 1.00           | 1.00          | 1.00          |               |
| TOMATO, PROCESSING                   | 4              | 0.04                 | 116               | 116               | 159          | 1.20     | 1.20     | 1.20     | 4         | 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 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 Al" 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 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.

Data is from Department of Pesticide Regulation's Pesticide Use Report with probable errors in pounds removed. -- 5/28/15