

Quantitative Usage Analysis for Diuron

Case No.: 46 PC Code: 35505
Date: 3-20-01 Analyst: Alan Halvorson

Based on available pesticide usage information for 1990 through 1999, total annual domestic usage of diuron is approximately 8 million pounds active ingredient (a.i.). In terms of pounds a.i., diuron usage is allocated to railroads (25%), oranges (15%), cotton (10%), seed crops (9%), sanitation/utilities (8%), industrial facilities/pipelines (7%), roadways (5%), grapefruit (3%), alfalfa (3%) and other sites (15%). Agricultural sites with more than one-fourth of their acreage treated are asparagus (53%), blackberries (53%), temples (51%), oranges (51%), grapefruit (47%), tangelos (47%), seed crops (44%), mint (41%), limes (33%), tangerines (30%), blueberries (29%) and lemons (26%). Important using states include California, Florida, Idaho, New York, Oregon, Pennsylvania, Texas and Washington. Per-acre rates for agricultural sites are generally less than 2 pounds a.i. per application and less than 3 pounds a.i. per year, while per-acre rates for non-agricultural sites are generally less than 6 pounds a.i. per application.

Diuron
03-20-01

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EPA QUANTITATIVE USAGE ANALYSIS

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of Most Usage total lb ai Site these states)	Acres	Acres Treated (000)		% Crop Treated		Lb AI Appl'd (000)		Avg Applic Rates/Acre			States
	(000)	-----		-----		-----		-----			(% of
	Grown	Wtd	Est	Wtd	Est	Wtd	Est	lb ai/	appl/	lb ai/	used by
		Avg	Max	Avg	Max	Avg	Max	year	year	appl	
FARM --											
Blackberries	5	3	4	53%	73%	5	7	1.7	1.1	1.5	OR 100%
Blueberries	59	17	22	29%	37%	21	29	1.2	1.1	1.1	MI NJ OR
84%											
Raspberries	13	2	4	13%	29%	2	4	1.2	1.1	1.1	WA OR
100%											
Grapes	869	87	155	10%	18%	100	200	1.2	1.0	1.2	CA NY PA
81%											
Grapefruit	189	89	147	47%	78%	240	462	2.7	1.7	1.6	FL TX
92%											
Lemons	67	18	35	26%	53%	39	86	2.2	1.3	1.7	CA AZ
98%											
Oranges	927	470	578	51%	62%	1,210	1,710	2.6	1.7	1.5	FL CA
97%											
Citrus, Other	62	24	39	38%	63%	65	118	2.8	1.7	1.6	FL AZ
93%											
- Limes	6	2	3	33%	49%	5	7	2.4	1.8	1.3	-
- Tangelos	12	6	7	47%	58%	17	26	2.9	2.1	1.4	FL 100%
- Tangerines	37	11	16	30%	43%	22	31	2.0	1.7	1.1	FL CA
100%											
- Temples	7	3	5	51%	80%	9	18	2.6	1.9	1.4	FL 100%
Apples	520	65	113	13%	22%	100	188	1.5	1.1	1.4	NY WA PA
MI ID OH 65%											
Pears	74	7	15	9%	20%	15	31	2.2	1.2	1.8	OR CA WA
81%											
Pome Fruit, Other	31	4	6	13%	19%	10	15	2.6	1.8	1.5	FL 98%
Avocados	80	1	2	1%	2%	1	3	1.7	1.3	1.3	FL 100%
Cherries, Sweet	52	0.2	0.8	0.3%	2%	0.3	1.7	2.1	1.9	1.1	MI OR
93%											
Cherries, Tart	49	1	4	3%	8%	3	9	2.1	1.2	1.8	MI 88%
Nectarines	36	0.1	0.5	0.3%	1%	0.2	0.8	1.6	1.0	1.6	-
Olives	36	8	12	24%	35%	14	19	1.6	1.2	1.4	-
Peaches	260	25	56	10%	21%	38	81	1.5	1.0	1.4	GA SC NJ
PA WV CA 74%											
Plums/Prunes	147	4	6	3%	4%	2	3	0.6	1.2	0.5	CA OR GA
85%											
Almonds	489	3	10	1%	2%	6	15	2.2	1.2	1.8	CA 100%
Hazelnuts/Filberts	29	4	8	14%	28%	5	9	1.2	1.0	1.2	OR 100%
Macadamia & Pistachio	75	4	7	5%	10%	9	18	2.5	2.4	1.0	-
Pecans	452	13	26	3%	6%	28	58	2.1	1.0	2.1	GA AZ NM
CA 80%											
Walnuts	215	26	43	12%	20%	51	98	2.0	1.1	1.8	CA 98%
Asparagus	83	45	56	53%	68%	74	80	1.7	1.2	1.3	CA MI WA
96%											
Barley	6,612	8	38	0.1%	1%	1	6	0.2	1.0	0.2	-

Corn TX 87%	77,779	19	79	0.02%	0.1%	18	83	0.9	1.0	0.9	LA MS PA
Mint 90%	167	68	91	41%	54%	22	29	0.3	-	-	CA ID
Oats 100%	2,667	3	8	0.1%	0.3%	2	5	0.6	-	-	OR WA
Seed Crops 88%	1,249	547	683	44%	55%	678	848	1.2	-	-	OR ID
Sorghum 91%	10,216	14	52	0.1%	1%	9	37	0.6	1.0	0.6	TX NM
Sugarcane	882	36	76	4%	9%	42	89	1.2	1.1	1.0	LA 93%
Wheat, Spring 88%	20,599	14	38	0.1%	0.2%	8	20	0.5	1.0	0.5	ID OR
Wheat, Winter 87%	43,721	150	319	0.3%	1%	140	380	0.9	1.0	0.9	OR OK WA
Alfalfa NV MT 81%	23,665	190	380	1%	2%	240	350	1.3	1.0	1.3	CA KS AZ
Hay, Other OR NC 81%	25,983	30	81	0.1%	0.3%	36	95	1.2	1.0	1.2	CA TX KS
Cotton AR GA 85%	13,188	1,450	2,322	11%	18%	770	1,224	0.5	1.3	0.4	TX MS LA
Cropland For Pasture 80%	63,687	3	6	-	-	4	8	1.3	1.0	1.3	OR CA
Pasture/Rangelnd, Oth	358,724	26	78	0.01%	0.02%	62	187	2.4	1.0	2.4	OR 83%
Fallow, Summer 84%	24,699	17	52	0.1%	0.2%	10	29	0.6	1.0	0.6	NE TX
Idle Cropland, Other	7,366	4	13	0.1%	0.2%	9	28	2.1	1.1	1.8	OR 92%
Lots/Farmsteads/Etc UT OR NC 70%	23,987	21	37	0.1%	0.2%	66	134	3.1	1.3	2.4	CA AR WA
- Building/Structures	-	-	-	-	-	2	5	-	-	-	-
- Roads/Ditches/Misc	-	-	-	-	-	64	129	-	-	-	-
Ornamentals 87%	-	47	70	-	-	54	80	1.2	1.1	1.1	OR CA MT

Diuron (Cont'd)
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of Most Usage total lb ai Site these states)	Acres	Acres Treated (000)		% Crop Treated		Lb AI Appl'd (000)		Avg Applic Rates/Acre			States
	(000)	-----		-----		-----		-----			(% of
	Grown	Wtd	Est	Wtd	Est	Wtd	Est	lb ai/ year	appl/ year	lb ai/ appl	used by
		Avg	Max	Avg	Max	Avg	Max				

NON-FARM --											
Indus Facil/Pipelines	4,312	-	-	-	-	518	1,047	-	-	6.5	-
- Wholesale/Manufactg	-	-	-	-	-	166	218	-	-	-	-
LCO's/LMC's	30,419	-	-	-	-	46	100	-	-	2.0	-
- Residential	-	-	-	-	-	13	25	-	-	-	-
- Office/Retail FH	-	-	-	-	-	28	42	-	-	-	-
Nurseries/Greenhouses	409	8	24	2%	6%	10	29	1.2	1.0	1.2	-
Office/Retail NfH	-	-	-	-	-	71	106	-	-	-	-
PCO's	-	5	15	-	-	-	-	-	-	-	-
Railroads	1,577	-	-	-	-	2,007	2,907	-	-	4.7	-
Recreation	-	-	-	-	-	12	23	-	-	-	-
Roadways	11,400	-	-	-	-	426	800	-	-	2.3	-
Sanitation/Utilities	-	-	-	-	-	617	1,051	-	-	-	-
- Electric Utilities	9,669	-	-	-	-	167	288	-	-	3.6	-
Total						7,914	10,429				

COLUMN HEADINGS

- Weighted average--the most recent years and more reliable data are weighted more heavily.
- Average application rates are calculated from the weighted averages.

NOTES ON TABLE DATA

- Usage data primarily cover 1990 - 1999.
- Calculations of the above numbers may not appear to agree because they are displayed as rounded.
- A dash (-) indicates that information on this site is NOT available in EPA sources or is insufficient.

CROP/SITE GROUPS AND ABBREVIATIONS

- Citrus, Other includes kumquats, limes, tangelos, tangerines, and temples.
- Pome Fruit, Other includes figs, kiwifruit, persimmons, pomegranates, carambolas, and papaya.
- Pasture/Rangeland, Other excludes cropland for pasture and pastured woodland.
- LCO = Lawn care operator
- LMC = Landscape maintenance contractor
- PCO = Pest control operator
- FH = For hire
- NfH = Not for hire

DATA SOURCES

- US EPA, 1990 - 1999 proprietary data
- USDA/NASS, 1990 - 1999 data
- NCFAP. circa 1992 and circa 1997 data