

Appendix L Plant Data on Photosystem II Inhibitors

Chemical	Species	% ai	Study Duration	IC ₂₅ (Lb Ai/A)	NOAEL	Category	Source (Study Year)
Diuron	Tomato, <i>Lycopersicon esculentum</i>	97.3	21 D	0.0017	0.0010	Acceptable	44113401 (1996)
Bromacil	Rape, <i>Brassica compestris</i>	95.9	21 D	0.002	<.0058	Supplemental	42491101 (1992)
Terbacil	Cucumber, <i>Cucumis sativus</i>	97.4	14 D	0.0022	<0.00022	Acceptable	42336701 (1992)
Terbacil	Rape, <i>Brassica compestris</i>	97.4	14 D	0.0035	<0.035	Acceptable	42336701 (1992)
Atrazine	Cucumber, <i>Cucumis sativus</i>	97.7	21 D	0.004	.002	Supplemental	41223003 (1989)
Terbacil	Rape, <i>Brassica</i> sp.	96.9	14 D	0.0048	0.0031	Acceptable	43895801 (1996)
Diuron	Cucumber, <i>Cucumis sativus</i>	97.3	21 D	0.0053	0.0050	Acceptable	44113401 (1996)
Bromacil	Rape, <i>Brassica napus</i>	98	21 D	0.0055	0.0030	Supplemental	44488307 (1998)
Terbacil	Cucumber, <i>Cucumis sativus</i>	96.9	14 D	0.0058	0.0031	Acceptable	43895801 (1996)
Prometryn	Cucumber, <i>Cucumis sativus</i>	98.1	21 D	.006	<0.006	Acceptable	41035903 (1988)
Ametryn	Lettuce, <i>Lactuca sativa</i>	96.8	21 D	0.006	<0.006	Acceptable	40995809 (1988)
Ametryn	Cucumber, <i>Cucumis sativus</i>	96.8	21 D	0.007	<0.006	Acceptable	40995809 (1988)
Atrazine	Cucumber, <i>Cucumis sativus</i>	97.7	21 D	0.008	.005	Acceptable	42041402 (1989)
Prometon	Lettuce, <i>Lactuca sativa</i>	98.5	21 D	0.008	0.005	Acceptable	41725303 (1990)
Prometon	Cucumber, <i>Cucumis sativus</i>	98.5	21 D	0.008	0.005	Acceptable	41725304 (1990)
Terbacil	Wheat, <i>Triticum aestivum</i>	96.9	14 D	0.0087	0.0063	Acceptable	43895801 (1996)
Diuron	Sugarbeet, <i>Beta vulgaris</i>	97.3	21 D	0.0087	0.0050	Acceptable	44113401 (1996)
Ametryn	Soybean, <i>Glycine max</i>	96.8	21 D	0.009	0.006	Acceptable	40995809 (1988)
Prometryn	Lettuce, <i>Lactuca sativa</i>	98.1	21 D	0.01	<.013	Acceptable	41035903 (1988)
Terbacil	Soybean, <i>Glycine max</i>	96.9	14 D	0.0108	0.0018	Acceptable	43895801 (1996)
Bromacil	Soybean, <i>Glycine max</i>	95.9	21 D	0.011	0.012	Acceptable	42491101 (1992)
Hexazinone	Oilseed rape, <i>Brassica napus</i>	100	21 D	0.011	0.0071	Acceptable	43162501 (1994)
Terbacil	Tomato, <i>Lycopersicon esculentum</i>	97.4	14 D	0.011	0.007	Acceptable	42336701 (1992)

Chemical	Species	% ai	Study Duration	IC ₂₅ (Lb Ai/A)	NOAEL	Category	Source (Study Year)
Bromoxynil heptanoate	Cabbage, Brassica oleracea	94.8	14 D	0.011	0.0058	Acceptable	43059603 (1993)
Hexazinone	Sugarbeet, Beta vulgaris	100	21 D	0.012	0.0082	Acceptable	43162501 (1994)
Bromoxynil heptanoate	Lettuce, Lactuca sativa	94.8	14 D	0.012	0.024	Acceptable	43059603 (1993)
Diuron	Soybean, Glycine max	97.3	21 D	0.012	0.002	Acceptable	44113401 (1996)
Hexazinone	Pea, Pisum sativum	100	21 D	0.012	0.0078	Acceptable	43162501 (1994)
Terbacil	Tomato, Lycopersicon esculentum	96.9	14 D	0.0126	0.0063	Acceptable	43895801 (1996)
Hexazinone	Tomato, Lycopersicon esculentum	100	21 D	0.013	0.0039	Acceptable	43162501 (1994)
Diuron	Garden pea, Pisum sativum	97.3	21 D	0.0138	0.0029	Acceptable	44113401 (1996)
Prometon	Soybean, Glycine max	98.5	21 D	0.015	0.009	Acceptable	41725304 (1990)
Prometon	Cabbage, Brassica oleracea	98.5	21 D	0.016	0.012	Acceptable	41725304 (1990)
Prometon	Oat, Avena sativa	98.5	21 D	0.016	0.012	Acceptable	41725304 (1990)
Simazine Princep 4L formulation	Onion, Allium cepa	45.06	21 D	>0.016	0.016	Acceptable	42634604 (1993)
Pyrazon	Cabbage, Brassica oleracea	97.4	21 D	0.017	<0.017	Acceptable	41681502 (1990)
Atrazine	Cucumber, Cucumis sativus	97.7	21 D	0.017	0.02	Acceptable	42041402 (1989)
Bromoxynil octanoate	Tomato, Lycopersicon esculentum	33.58	14 D	0.017	0.015	Acceptable	43633701 (1995)
Terbacil	Sugarbeet, Beta vulgaris	96.9	14 D	0.0176	0.0063	Acceptable	43895801 (1996)
Prometon	Tomato, Lycopersicon esculentum	98.5	21 D	0.018	0.012	Acceptable	41725304 (1990)
Bromoxynil heptanoate	Tomato, Lycopersicon esculentum	94.8	14 D	0.018	0.012	Acceptable	43059603 (1993)
Bromoxynil octanoate	Cabbage, Brassica oleracea	33.58	14 D	0.018	0.015	Supplemental	43633701 (1995)
Terbacil	Soybean, Glycine max	97.4	14 D	0.018	0.015	Acceptable	42336701 (1992)
Hexazinone	Wheat, Triticum aestivum	100	21 D	0.020	0.010	Acceptable	43162501 (1994)
Diuron	Wheat, Triticum aestivum	97.3	21 D	0.0208	0.0017	Acceptable	44113401 (1996)

Chemical	Species	% ai	Study Duration	IC ₂₅ (Lb Ai/A)	NOAEL	Category	Source (Study Year)
Prometon	Onion, Allium cepa	98.5	21 D	0.021	0.012	Acceptable	41725304 (1990)
Ametryn	Tomato, Lycopersicon esculentum	96.8	21 D	0.021	<0.02	Acceptable	40995809 (1988)
Bromoxynil octanoate	Tomato, Lycopersicon esculentum	97.2	7 D	0.024	<0.024	Acceptable	41606006 (1990)
Bromoxynil heptanoate	Turnip, Brassica rapa	94.8	14 D	0.024	<0.024	Acceptable	43059603 (1993)
Simazine	Oat, Avena sativa	45.06	21 D	.025	0.016	Acceptable	42634604 (1993)
Hexazinone	Soybean, Glycine max	100	21 D	0.025	0.016	Acceptable	43162501 (1994)
Hexazinone	Sorghum, Sorghum bicolor	100	21 D	0.025	0.013	Acceptable	43162501 (1994)
Simazine	Lettuce, Lactuca sativa	45.06	21 D	0.026	0.016	Acceptable	42634604 (1993)
Bromacil	Tomato, Lycopersicon esculentum	95.9	21 D	0.028	0.023	Acceptable	42491101 (1992)
Bromoxynil heptanoate	Cucumber, Cucumis sativus	94.8	14 D	0.028	0.012	Acceptable	43059603 (1993)
Bromoxynil octanoate	Turnip, Brassica rapa	33.58	14 D	0.029	0.015	Supplemental	43633701 (1995)
Terbacil	Corn, Zea mays	96.9	14 D	0.0297	0.025	Acceptable	43895801 (1996)
Bromoxynil octanoate	Cabbage, Brassica oleracea	97.2	7 D	0.03	0.024	Acceptable	41606006 (1990)
Simazine Princep 4L formulation	Lettuce, Lactuca sativa	45.06	21 D	0.031	0.016	Acceptable	42634604 (1993)
Prometon	Ryegrass, Lolium perenne	98.5	21 D	0.032	0.012	Acceptable	41725304 (1990)
Simazine Princep 4L formulation	Oat, Avena sativa	45.06	21 D	0.033	0.016	Acceptable	42634604 (1993)
Diuron	Rape, Brassica sp.	97.3	21 D	0.0331	0.0117	Acceptable	44113401 (1996)
Prometon	Carrot, Daucus carota	98.5	21 D	0.034	0.023	Acceptable	41725304 (1990)
Terbacil	Garden pea, Pisum sativum	96.9	14 D	0.0357	0.025	Acceptable	43895801 (1996)
Pyrazon	Soybean, Glycine max	97.4	21 D	0.036	0.009	Acceptable	41681502 (1990)
Simazine Princep 4L formulation	Cucumber, Cucumis sativus	45.06	21 D	0.036	0.016	Acceptable	42634604 (1993)
Atrazine	Soybean, Glycine max	97.7	21 D	0.038	.02	Supplemental	41223003 (1989)

Chemical	Species	% ai	Study Duration	IC ₂₅ (Lb Ai/A)	NOAEL	Category	Source (Study Year)
Simazine Princep 4L formulation	Cabbage, Brassica oleracea	45.06	21 D	0.041	0.016	Acceptable	42634604 (1993)
Bromacil	Wheat, Triticum aestivum	98	21 D	0.042	0.020	Supplemental	44488307 (1998)
Terbacil	Sorghum, Sorghum bicolor	96.9	14 D	0.0426	<0.0426	Acceptable	43895801 (1996)
Atrazine	Cucumber, Cucumis sativus	97.7	21 D	0.045	0.02	Acceptable	42041402 (1989)
Bentazon sodium salt	Cabbage, Brassica oleracea	53	21 D	0.046	0.025	Supplemental	42129606 (1991)
Hexazinone	Onion, Allium cepa	100	21 D	0.046	0.0139	Acceptable	43162501 (1994)
Simazine Princep 4L formulation	Tomato, Lycopersicon esculentum	45.06	21 D	0.054	0.049	Acceptable	42634604 (1993)
Terbacil	Wheat, Triticum aestivum	97.4	14 D	0.062	0.12	Acceptable	42336701 (1992)
Simazine Princep 4L formulation	Radish, Raphanus sativus	45.06	21 D	0.063	0.049	Acceptable	42634604 (1993)
Hexazinone	Corn, Zea mays	100	21 D	0.071	0.049	Acceptable	43162501 (1994)
Simazine Princep 4L formulation	Soybean, Glycine max	45.06	21 D	0.072	0.049	Acceptable	42634604 (1993)
Prometryn	Tomato, Lycopersicon esculentum	98.1	21 D	0.073	<0.073	Acceptable	41035903 (1988)
Bentazon sodium salt	Lettuce, Lactuca sativa	53	21 D	0.074	0.063	Supplemental	42129606 (1991)
Terbacil	Onion, Allium cepa	96.9	14 D	0.0741	0.05	Acceptable	43895801 (1996)
Diuron	Sorghum, Sorghum bicolor	97.3	21 D	0.0753	0.0117	Acceptable	44113401 (1996)
Pyrazon	Lettuce, Lactuca sativa	97.4	21 D	0.078	0.049	Acceptable	41681502 (1990)
Pyrazon	Oat, Avena sativa	97.4	21 D	0.084	<0.08	Acceptable	41681502 (1990)
Bromacil	Onion, Allium cepa	95.9	21 D	>0.09	>0.09	Acceptable	42491101 (1992)
Bromacil	Wheat, Triticum aestivum	95.9	21 D	>0.09	0.047	Acceptable	42491101 (1992)
Bromacil	Sorghum, Sorghum bicolor	95.9	21 D	0.09	0.188	Acceptable	42491101 (1992)
Bentazon sodium salt	Onion, Allium cepa	53	21 D	0.096	<0.09	Supplemental	42129607 (1991)
Prometryn	Cabbage, Brassica oleracea	98.1	21 D	0.1	0.05	Acceptable	41035903 (1988)
Pyrazon	Cucumber, Cucumis sativus	97.4	21 D	0.101	0.099	Acceptable	41681502 (1990)

Chemical	Species	% ai	Study Duration	IC ₂₅ (Lb Ai/A)	NOAEL	Category	Source (Study Year)
Pyrazon	Onion, Allium cepa	97.4	21 D	0.104	0.099	Acceptable	41681502 (1990)
Ametryn	Onion, Allium cepa	96.8	21 D	0.105	0.05	Acceptable	40995809 (1988)
Terbacil	Onion, Allium cepa	97.4	14 D	0.12	0.12	Acceptable	42336701 (1992)
Bromoxynil octanoate	Lettuce, Lactuca sativa	33.58	14 D	0.14	0.063	Supplemental	43633701 (1995)
Pyrazon	Tomato, Lycopersicon esculentum	97.4	21 D	0.148	0.099	Acceptable	41681501 (1990)
Diuron	Onion, Allium cepa	97.3	21 D	0.148	0.094	Acceptable	44113401 (1996)
Prometryn	Onion, Allium cepa	98.1	21 D	0.16	0.1	Acceptable	41035903 (1988)
Simazine Princep 4L formulation	Ryegrass, Lolium perenne	45.06	21 D	>0.16	0.016	Acceptable	42634604 (1993)
Prometryn	Soybean, Glycine max	98.1	21 D	0.175	0.1	Acceptable	41035903 (1988)
Bentazon sodium salt	Tomato, Lycopersicon esculentum	53	21 D	0.18	0.06	Supplemental	42129606 (1991)
Pyrazon	Carrot, Daucus carota	97.4	21 D	0.184	0.099	Acceptable	41681502 (1990)
Prometon	Corn, Zea mays	98.5	21 D	>0.188	0.188	Acceptable	41725304 (1990)
Bromoxynil octanoate	Cucumber, Cucumis sativus	33.58	14 D	0.2	0.14	Supplemental	43633701 (1995)
Ametryn	Cabbage, Brassica oleracea	96.8	21 D	0.207	0.2	Acceptable	40995809 (1988)
Ametryn	Corn, Zea mays	96.8	21 D	0.222	0.2	Acceptable	40995809 (1988)
Bromoxynil heptanoate	Ryegrass, Lolium perenne	94.8	14 D	0.23	0.19	Acceptable	43059603 (1993)
Ametryn	Oat, Avena sativa	96.8	21 D	0.274	<0.27	Acceptable	40995809 (1988)
Bromoxynil heptanoate	Soybean, Glycine max	94.8	14 D	0.31	0.13	Acceptable	43059603 (1993)
Atrazine	Lettuce, Lactuca sativa	97.7	21 D	0.326	.25	Supplemental	41223003 (1989)
Ametryn	Ryegrass, Lolium perenne	96.8	21 D	0.338	<0.338	Acceptable	40995809 (1988)
Bromoxynil heptanoate	Onion, Allium cepa	94.8	14 D	>0.35	0.35	Acceptable	43059603 (1993)
Bromoxynil heptanoate	Oat, Avena sativa	94.8	14 D	>0.37	0.37	Acceptable	43059603 (1993)
Bromoxynil heptanoate	Corn, Zea mays	94.8	14 D	>0.37	0.37	Acceptable	43059603 (1993)
Bromoxynil octanoate	Onion, Allium cepa	33.58	14 D	0.37	0.26	Acceptable	43633701 (1995)

Chemical	Species	% ai	Study Duration	IC ₂₅ (Lb Ai/A)	NOAEL	Category	Source (Study Year)
Ametryn	Carrot, <i>Daucus carota</i>	96.8	21 D	0.373	0.2	Acceptable	40995809 (1988)
Bentazon sodium salt	Radish, <i>Rhaphanus sativus</i>	53	21 D	0.39	0.25	Supplemental	42299606 (1991)
Diuron	Corn, <i>Zea mays</i>	97.3	21 D	0.39	0.19	Acceptable	44113401 (1996)
Pyrazon	Ryegrass, <i>Lolium perenne</i>	97.4	21 D	0.43	<0.4	Acceptable	41681502 (1990)
Simazine	Radish, <i>Rhaphanus sativus</i>	45	21 D	0.49	0.16	Acceptable	42634604 (1993)
Simazine	Cucumber, <i>Cucumis sativus</i>	45	21 D	0.49	0.16	Acceptable	42634604 (1993)
Simazine	Cabbage, <i>Brassica oleracea</i>	45	21 D	0.49	0.16	Acceptable	42634604 (1993)
Prometryn	Corn, <i>Zea mays</i>	98.1	21 D	0.51	<0.51	Acceptable	41035903 (1988)
Atrazine	Onion, <i>Allium cepa</i>	97.7	21 D	0.596	0.5	Supplemental	41223003 (1989)
Pyrazon	Corn, <i>Zea mays</i>	97.4	21 D	0.767	0.49	Acceptable	41681502 (1990)
Atrazine	Tomato, <i>Lycopersicon esculentum</i>	97.7	21 D	0.81	.5	Supplemental	41223003 (1989)
Bentazon sodium salt	Corn, <i>Zea mays</i>	53	21 D	>1.0	1.0	Supplemental	42129607 (1991)
Bentazon sodium salt	Oat, <i>Avena sativa</i>	53	21 D	>1.0	1.0	Supplemental	42129606 (1991)
Bentazon sodium salt	Soybean, <i>Glycine max</i>	53	21 D	>1.0	1.0	Supplemental	42129606 (1991)
Bentazon sodium salt	Ryegrass, <i>Lolium perenne</i>	53	21 D	>1.0	1.0	Supplemental	42129606 (1991)
Bentazon sodium salt	Cucumber, <i>Cucumis sativus</i>	53	21 D	>1.0	0.12	Supplemental	42129606 (1991)
Terbacil	Garden pea, <i>Pisum sativum</i>	97.4	14 D	1.0	0.017	Acceptable	42336701 (1992)
Desmedipham	Onion, <i>Allium cepa</i>	98	21 D	>1.22	1.22	Acceptable	41816401 (1991)
Desmedipham	Corn, <i>Zea mays</i>	98	21 D	>1.22	1.22	Acceptable	41816401 (1991)
Desmedipham	Wheat, <i>Triticum aestivum</i>	98	21 D	>1.22	1.22	Acceptable	41816401 (1991)
Desmedipham	Oat, <i>Avena sativa</i>	98	21 D	>1.22	1.22	Acceptable	41816401 (1991)
Desmedipham	Carrot, <i>Daucus carota</i>	98	21 D	>1.22	1.22	Acceptable	41816401 (1991)
Desmedipham	Soybean, <i>Glycine max</i>	98	21 D	>1.22	1.22	Acceptable	41816401 (1991)

Chemical	Species	% ai	Study Duration	IC ₂₅ (Lb Ai/A)	NOAEL	Category	Source (Study Year)
Desmedipham	Lettuce, Lactuca sativa	98	28 D	>1.22	>1.22	Acceptable	42366301 (1992)
Desmedipham	Radish, Raphanus sativus	98	21 D	>1.22	<1.22	Acceptable	41816401 (1991)
Desmedipham	Lettuce, Lactuca sativa	98	21 D	<1.22	<1.22	Acceptable	41816401 (1991)
Desmedipham	Cucumber, Cucumis sativus	98	21 D	>1.22	<1.22	Acceptable	41816401 (1991)
Desmedipham	Tomato, Lycopersicon esculentum	98	21 D	>1.22	<1.22	Acceptable	41816401 (1991)
Prometryn	Oat, Avena sativa	98.1	21 D	1.41	0.8	Acceptable	41035903 (1988)
Atrazine	Carrot, Daucus carota	97.7	21 D	1.519	.5	Supplemental	41223003 (1989)
Prometryn	Carrot, Daucus carota	98.1	21 D	>1.6	0.8	Acceptable	41035903 (1988)
Prometryn	Ryegrass, Lolium perenne	98.1	21 D	>1.6	>1.6	Acceptable	41035903 (1988)
Terbacil	Sorghum, Sorghum bicolor	97.4	14 D	>2.0	>2.0	Acceptable	42336701 (1992)
Atrazine	Oat, Avena sativa	97.7	21 D	2.4	2.0	Supplemental	41223003 (1989)
Atrazine	Ryegrass, Lolium perenne	97.7	21 D	3.287	2.0	Supplemental	41223003 (1989)
Atrazine	Corn, Zea mays	97.7	21 D	>4.0	>.4	Supplemental	41223003 (1989)
Simazine Princep 4L formulation	Corn, Zea mays	45.06	21 D	>4.0	4.0	Acceptable	42634604 (1993)
Atrazine	Cabbage, Brassica oleracea	97.7	21 D	N.R	.02	Acceptable	42041402 (1989)