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Addenda
Integrated Pest Management for Small Grains

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Additions or modifications to existing text are underlined. ~~Strikethrough~~ indicates existing text that is being deleted.

p. 7, paragraph 3:

Barley is grown primarily for feed grain and silage; malting barley is grown in Intermountain areas and occasionally in the Central Valley.

p. 7, paragraph 4:

Planted acreage varies considerably from year to year, depending on market conditions. Acreage and production averages for ~~1984~~ 1993 through ~~1988~~ 1997 are shown in Table 1. Wheat yields in some irrigated areas of the Central Valley may exceed 3 or 4 tons per acre. California ranked ~~fourteenth~~ fifteenth among states in both oat and wheat production in ~~1988~~ 1996 and sixth in barley production.

p.7, paragraph 6:

San Joaquin Valley. The San Joaquin Valley produces about the same amount of hard red and hard white wheat as the Sacramento Valley, substantially larger ~~acreages~~acreage of barley and oats, and a large amount of durum wheat.

p. 8, Table 1:

Replace existing Table 1 with new Table 1 below.

p. 24, Table 6:

Replace existing Table 6 with new Table 6 on page A2–A3.

p. 25, Table 7:

Replace existing Table 7 with new Table 7 on page A4–A5.

p. 26, Table 8:

Replace existing Table 8 with new Table 8 page A6.

p. 43, Figure 15:

Replace existing Figure 15 with new Figure 15 on page A8.

p. 64, Table 19:

Row 1, change stripe rust on barley from not significant *to* major disease.

Table 1. California Small Grain Production by Region. Figures are averages of 1993 through 1997 and include both irrigated and dryland production (in tons). Only the acreage harvested for grain or seed is listed.

	GROWING AREA					
CROP	Sacramento Valley	San Joaquin Valley	Coastal	Southern Desert	Inter-mountain	Total
Wheat						
Acres harvested	227,420	292,049	19,989	111,209	14,345	665,012
Tons produced	531,712	755,193	26,008	278,107	42,066	1,633,086
Yield (tons/acre)	2.34	2.59	1.30	2.50	2.93	2.46
Barley						
Acres harvested	25,416	98,875	50,574	6,808	31,537	213,209
Tons produced	39,945	195,400	50,923	6,565	81,674	374,506
Yield (tons/acre)	1.57	1.98	1.01	0.96	2.59	1.76
Oats						
Acres harvested	4,731	4,093	3,034	1,350	5,210	18,418
Tons produced	7,559	8,342	3,373	1,687	10,884	31,845
Yield (tons/acre)	1.60	2.04	1.11	1.25	2.09	1.73

Table 6. Characteristics of Wheat and Triticale Cultivars Grown in California.

Cultivar	Type[1]	Maturity	Straw Strength	Planting Date: Growing Areas[2]	DISEASE SUSCEPTIBILITIES[3] Septoria tritici Blotch	Barley Yellow Dwarf	Stripe Rust	Leaf Rust	Powdery Mildew
Alpowa	SWS	medium late	good	spring: *5*	◑	◑	◑	●	–
Anza	HRS	medium late	good	late fall: *1, 2, 3*	◑	⊙	○	◑	○
Blanca	SWS	medium	good	spring: *5*	◑	◑	●	◑	–
Bonus	HRS	medium early	good	late fall: *1, 2, 3, 4*	◑	◑	○	○	⊙
Brooks	HRS	medium early	fair	late fall: *2, 3, 4*	●	◑	●	◑	⊙
Cavalier	HRS	medium early	fair	late fall: *2, 4*	●	◑	○	●	○
Centennial	SWS	medium early	good	spring: *5*	–	◑	○	◑	-
Cortez	D	late	good	late fall: *2, 4*	○	○	○	○	⊙
Crown	D	medium late	fair	late fall: *2, 4*	◑	–	○	–	–
Cuyama	HRS	medium early	good	late fall: *2, 3, 4*	●	◑	●	◑	○
Deluxe	D	medium late	fair	late fall: *2, 4*	○	◑	◑	○	⊙
Dirkwin	SWS (forage)	medium late	poor	late fall: *1, 2, 3* spring: *5*	●	◑	○	●	⊙
Duraking	D	medium late	fair	late fall: *2, 4*	⊙	◑	○	○	○
Durex	D	medium	good	late fall: *2, 4*	◑	◑	○	○	⊙
Eddie	D	medium late	fair	late fall: *2, 4*	●	⊙	⊙	○	⊙
Eltan	SWW	medium late	fair	fall: *5*	–	◑	⊙	●	–
Express	HRS	medium	good	late fall: *1, 2, 3, 4*	⊙	●	●	○	○
Fieldwin	SWS	medium	poor	spring: *5*	–	◑	●	◑	–
Gene	SWW (forage)	early	good	fall: *5*	●	◑	⊙	○	–
Jefferson	HRS	medium early	good	spring: *5*	–	◑	○	●	–
Klasic	HWS	medium early	fair	late fall: *1, 2, 3, 4* spring: *5*	●	◑	○	●	○
Kofa	D	medium	fair	late fall: *2, 4*	●	●	●	○	○
Kronos	D	medium	poor	late fall: *2, 4*	●	●	⊙	○	⊙
Lambert	SWW	medium early	good	fall: *5*	●	⊙	⊙	⊙	–
Longhorn	HRW (forage)	late	good	late fall: *1, 2*	◑	◑	–	⊙	⊙
Malcolm	SWW	medium early	excellent	fall: *5*	●	●	⊙	◑	–
Minos	D	medium	poor	late fall: *2, 4*	–	●	⊙	○	○
Mohawk	D	medium	poor	late fall: *2, 4*	○	◑	◑	○	◑
Nugaines	SWW	medium	good	fall: *5*	◑	–	⊙	●	–
Penawawa	SWS	medium	good	spring: *5*	●	◑	⊙	◑	●

Table 6. continued

Cultivar	Type[1]	Maturity	Straw Strength	Planting Date: Growing Areas[2]	DISEASE SUSCEPTIBILITIES[3] Septoria tritici Blotch	Barley Yellow Dwarf	Stripe Rust	Leaf Rust	Powdery Mildew
Pomerelle	SWS	medium	fair	spring: *5*	–	◑	○	◑	–
Reva	D	medium late	fair	late fall: *2, 4*	◑	◑	○	○	⊙
Ria	D	medium late	fair	late fall: *2, 4*	○	◑	○	○	⊙
Rhode	SWW (club)	medium early	excellent	fall: 5	●	◑	⊙	◑	–
Rod	SWW	medium late	fair	fall: *5*	●	●	⊙	◑	–
RSI 5	HRS	medium	good	late fall: *1, 2, 3*	⊙	◑	●	○	⊙
Serra	HRS	medium	poor	late fall: *1, 2, 3* spring: *5*	◑	○	○	●	○
Stander	HRS	medium	excellent	late fall: *1, 2, 3, 4*	⊙	◑	○	○	⊙
Stephens	SWW	medium early	good	fall: *5*	●	◑	⊙	◑	–
Sunstar Promise	SWS	medium early	fair	spring: *5*	–	◑	○	◑	–
Tacna	D	medium	fair	late fall: *2, 4*	●	●	⊙	○	⊙
Twin	SWS (forage)	medium late	fair	late fall: *1, 2, 3* spring: *5*	●	◑	⊙	●	–
Vanna	SWS	medium	fair	spring: *5*	◑	◑	○	⊙	–
Westbred Turbo	D	late	fair	late fall: *2, 4*	○	○	○	○	◑
Westbred 881	D	medium	good	late fall: *2, 4*	●	●	●	○	○
Westbred 926	HRS	early	excellent	spring: *5*	–	◑	○	⊙	○
Westbred 936	HRS	medium early	excellent	spring: *5*	–	◑	○	◑	–
Whitebird	SWS	medium	good	spring: *5*	◑	◑	⊙	◑	–
Yamhill	SWW (forage)	medium	fair	fall: *5*	⊙	–	●	◑	–
Yavaros 79	D	medium late	poor	late fall: *2, 4*	○	◑	○	○	○
Yecora Rojo	HRS	medium early	fair	late fall: *1, 2, 3, 4*; spring: *5*	●	◑	○	●	○
Yolo	HRS	medium	fair	late fall: *1, 3*	◑	◑	○	◑	○
Juan	Triticale	medium	fair	late fall: *1, 2, 3, 4*	○	◑	○	○	○
Trical 105	Triticale	medium	good	late fall: *1, 2, 3, 4*	○	◑	○	○	○
T2700	Triticale (forage)	early	good	late fall: *1, 2, 3, 4*	○	◑	○	○	○

1. D = durum, HRS = hard red spring, HRW = hard red winter, HWS = hard white spring, SWS = soft white spring, SWW = soft white winter.
2. 1 = Sacramento Valley and Delta, 2 = San Joaquin Valley, 3 = coastal, 4 = southern desert valleys, 5 = Intermountain region.
3. Key: ○ = resistant
   ⊙ = moderately resistant
   ◑ = moderately susceptible
   ● = susceptible
   – = no information

Table 7. Characteristics of Barley Cultivars Grown in California.

Cultivar	Type	Growth Habit	Maturity	Plant Height[1]	Straw Strength	Planting Date: Growing Areas[2]	DISEASE SUSCEPTIBILITIES[3]					
							Scald	Net Blotch	Barley Yellow Dwarf	Stripe Rust	Leaf Rust	Powdery Mildew
Arivat	6-row feed	spring	early	T	poor	late fall: *1, 2, 3*	●	◑	●	●	◑	–
B1202	2-row malt	spring	medium late	M-T	fair	spring: *5*	–	–	○	●	–	–
Baronesse	2-row feed	spring	medium late	M	poor	spring: *5*	–	–	○	●	–	–
Belford	Hooded	spring	medium	T	poor	late fall: *1, 2, 3*	–	–	–	●	–	–
Boyer	6-row feed	winter	medium	M	good	fall: *5*	◑	–	◑	●	–	–
Colter	6-row feed	spring	medium early	M-T	fair	spring: *5*	–	–	●	●	–	–
Eight-Twelve	6-row feed	winter	medium	M-S	fair	fall: *5*	●	–	◑	●	–	–
Galena	2-row malt	spring	late	S	fair	spring: *5*	●	–	●	◑	–	–
Gustoe	6-row feed	spring	late	S	fair	late fall: *1, 2, 3, 4*; spring: *5*	●	○	○	●	●	◑
Kold	6-row feed	winter	medium	M-S	fair	fall: *5*	○	○	◑	○	–	–
Max	6-row feed	spring	late	S	fair	late fall: *1, 2, 3, 4*	●	●	○	●	◑	–
Meltan	2-row feed	spring	medium late	M-T	excellent	late fall: *1*	●	○	●	–	○	–
Merit	2-row malt	spring	medium late	M-T	poor	spring: *5*	●	○	○	●	○	–
Morex	6-row malt	spring	medium early	T	poor	spring: *5*	–	–	–	●	–	–
Nebula	6-row feed	spring	medium late	M	good	late fall: *1, 2, 3, 4*	○	◑	◑	●	◑	–
Orca	2-row feed	spring	early	M-T	good	spring: *5*	–	–	○	○	●	–
Patti	6-row feed	spring	medium early	S	good	late fall: *1, 2, 3, 4*	●	○	○	◑	●	–
Steptoe	6-row feed	spring	early	M-T	fair	fall: *5*; spring: *5*	◑	●	●	●	◑	○
Statehood	6-row feed	spring	early	M-T	good	spring: *5*	–	–	–	●	–	–

Table 7. continued

Cultivar	Type	Growth Habit	Maturity	Plant Height[1]	Straw Strength	Planting Date: Growing Areas[2]	DISEASE SUSCEPTIBILITIES[3] Scald	Net Blotch	Barley Yellow Dwarf	Stripe Rust	Leaf Rust	Powdery Mildew
Strider	6-row feed	winter	medium early	M-S	fair	fall: *5*	◑	◑	◑	○	–	–
Tango	6-row feed	spring	early	M-T	fair	spring: *5*	–	–	●	○	–	–
UC 337	6-row feed	spring	medium early	M-T	fair	late fall: *1, 2, 3, 4*	◑	⊙	○	●	◑	◑
UC 476	6-row feed	spring	medium	M-T	good	late fall: *1, 2, 3, 4*	●	◑	○	◑	◑	○
UC 603	6-row feed	spring	early	M-S	excellent	late fall: *1, 2, 3, 4*	⊙	●	◑	⊙	◑	○
UC 828	6-row feed	spring	medium	S	good	late fall: *1, 2, 3, 4*	◑	◑	◑	●	⊙	⊙
UC 937	6-row feed	spring	medium	M	fair	late fall: *1, 2, 3, 4*	○	○	⊙	○	◑	–
UC 960	6-row feed	spring	early	S	excellent	spring: *5*	–	–	⊙	○	–	–
Westbred Sprinter	6-row feed	facultative	late	M-S	excellent	fall: *5*; spring: *5*	⊙	–	◑	⊙	–	–

1. T = Tall; M = Medium; S = Short.
2. 1 = Sacramento Valley and Delta, 2 = San Joaquin Valley, 3 = coastal, 4 = southern desert valleys, 5 = Intermountain region.
3. Key: ○ = resistant
   ⊙ = moderately resistant
   ◑ = moderately susceptible
   ● = susceptible
   – = no information

p. 65, paragraph 11:

Foliar-applied fungicides usually are not economical for small grains. If the value of the crop warrants it, their use may be justified to control Septoria, powdery mildew, leaf rust, and stripe rust when disease incidence, susceptibility of the crop, and expected weather conditions indicate that severe losses are likely.

p. 66, paragraph 9:

Septoria tritici survives ~~on infected crop residue and volunteer wheat~~ as the perfect stage, *Mycosphaerella graminicola*, which produces spores called ascospores in sexual fruiting bodies in wheat debris remaining from previous crops. These spores mature after the first fall rains and are forcibly discharged into the air.

p. 67, paragraph 1:

Infection can occur over a wide range of temperatures, from about 41° to 94°F (5° to 35° C); however, disease development is favored by temperatures of about 60° to ~~70°~~ 77°F (15° to ~~21°~~ 25°C).

p. 67, paragraph 4:

At the present time, ~~Tadinia is the only~~ a few of the available cultivars are resistant to *Septoria tritici*. They are not resistant to *Septoria nodorum*, which is of minor importance in California. ~~Consult your farm advisor for the latest information on cultivar performance in your area.~~ Additional resistant cultivars are being developed. For the latest information about available cultivars, consult the *UC IPM Pest Management Guidelines: Small Grains* listed in the references.

Table 8. Characteristics of Oat Cultivars Grown in California.

Cultivar	Maturity	Plant Height	Stem Fineness	Straw Strength	Planting Date: Growing Areas[1]	SUSCEPTIBILITIES[2] Yellow Dwarf	Barley Stem Rust	Crown Rust	Barley Root-Knot Nematode	Stem and Bulb Nematode
Ajay	late	short	–	good	spring: *5*	–	–	–	–	–
Bates 89	late	tall	fine	fair	fall: *1, 2, 3, 4*	⊙	○	⊙	–	–
California Red	late	tall	fine	poor	fall: *1, 2, 3, 4*	●	●	◑	●	●
Cayuse	late	tall	coarse	fair	fall: *1, 2, 3, 4*; spring: *5*	◑	○	◑	○	○
Curt	early	very short	fine	poor	fall: *1, 2, 3, 4*	●	⊙	●	○	○
Kanota	early	tall	fine	poor	fall: *1, 2, 3, 4*	●	●	●	○	○
Monida	medium	tall	–	good	spring: *5*	–	–	–	–	–
Montezuma	early	medium	fine	poor	fall: *1, 2, 3, 4*	●	●	●	●	●
Ogle	medium late	tall	coarse	excellent	fall: *1, 2, 3, 4*; spring: *5*	⊙	○	○	–	–
Pert	late	short	coarse	excellent	fall: *1, 2, 3, 4*	⊙	○	◑	–	–
Sierra	medium early	tall	coarse	fair	fall: *1, 2, 3, 4*	●	●	●	●	●
Swan	medium early	tall	medium	good	fall: *1, 2, 3, 4*	⊙	●	●	●	–

1. 1 = Sacramento Valley and Delta, 2 = San Joaquin Valley, 3 = coastal, 4 = southern desert valleys, 5 = Intermountain region.
2. Key: ○ = resistant
   ⊙ = moderately resistant
   ◑ = moderately susceptible
   ● = susceptible
   – = no information

p. 71, paragraph 1:

Stripe rust is potentially the most serious rust disease of wheat and barley in California but is presently controlled with resistant cultivars (see Tables 6 and 7). ~~The disease is not important on California barley~~.

p. 79, paragraph 6:

Karnal Bunt. Karnal bunt, caused by *Tilletia indica*, ~~is not known to occur in California. The disease~~ occurs in Mexico, where it reduces seed quality but does not affect yield significantly. Durum wheat and triticale are affected less than common wheat. Barley and oats are not affected. Although seed contaminated with teliospores of karnal bunt was sown in the southern desert growing areas of Imperial and Riverside counties in 1996, only trace levels of karnal bunt have been detected in Riverside County and the disease has not been detected elsewhere in California.

p. 88, paragraph 2:

Late-season monitoring may be needed in areas where production of honeydew by aphids late in the season may interfere with grain or grain hay harvest. The Russian wheat aphid causes serious losses in some isolated cases.

p. 88, paragraph 3:

Delete paragraph 3: ~~The relative lack of insect problems in California small grains may soon be a thing of the past. The Russian wheat aphid, which has devastated small grains in other areas of the western United States, was first found in California in 1988. It has since been reported in most growing areas of the state and has caused serious losses in some isolated cases. Growers and pest control advisers should be on the lookout for the Russian wheat aphid throughout the season~~.

p. 89, paragraph 4:

It is important to be able to recognize the greenbug and Russian wheat aphid, which can injure plants when in smaller numbers than other aphids. Figures 20 and 21 point out distinguishing characteristics of these aphid species. ~~Identification of the Russian wheat aphid is critical to determine its spread in the state; it may become a more serious grain pest than the other aphid species.~~

p. 92, paragraph 3:

Russian Wheat Aphid, *Diuraphis noxia.* The Russian wheat aphid ~~is now known to occur in most grain-growing areas of California~~ occurs throughout California, and reaches damaging levels only sporadically. However, in the high desert area of northern Los Angeles County, major outbreaks of Russian wheat aphid occur every 3 to 4 years. The reasons for the sporadic nature of outbreaks are not understood, but probably involve natural enemies (including diseases), environmental conditions, and crop management techniques. This aphid has attacked all small grains in other states, causing serious damage on barley and wheat. It feeds on foliage and grain spikes, injecting a toxin that causes discoloration and distortion of the grain plant . . . In the absence of grain crops or volunteers, Russian wheat aphids survive ~~the summer~~ on a number of ~~grasses. Important potential hosts include wheatgrasses, *Agropyron* spp., rescuegrass, *Bromus catharticus*, foxtails, *Setaria* spp., wild barleys, *Hordeum* spp., and bermudagrass, *Cynodon dactylon.*~~ summer and winter grasses. Important hosts include wild oats, *Avena fatua*; brome grasses, *Bromus* spp.; Italian ryegrass, *Lolium multiflorum*; foxtail barley, *Hordeum leporinum*; bermudagrass, *Cynodon dactylon*; and rescuegrass, *Bromus willdenowii*. Russian wheat aphids frequently spend the summer on a number of these grasses then move to small grains in the fall. Fields planted next to riparian habitat or summer pastures are particularly likely to be invaded by Russian wheat aphids.

p. 94, paragraph 2:

Barley and dryland wheat are most affected; the aphid causes the greatest injury to plants that are water stressed. Russian wheat aphids do not reach high levels or cause significant damage on oats. ~~It is not yet known how damaging this aphid may become in California.~~

p. 95, paragraph 1:

~~However, the introduction of the Russian wheat aphid will likely change these patterns in most areas of California. In other states, insecticide treatments sometimes have been needed to prevent serious losses. A few years' experience will be necessary before solid management guidelines are available for the Russian wheat aphid in California.~~ Russian wheat aphid can tolerate lower temperatures than most other grain aphids and consequently may begin to build up earlier in the season. Serious damage may occur in some years, or the aphids may infest grain heads and severe injury may result. Fields that are planted late or stressed by inadequate or excessive water are more susceptible to Russian wheat aphid infestation and injury. In areas where Russian wheat aphid is a problem, the best management strategies are early planting, avoiding water stress, and avoiding planting near riparian habitat or permanent pasture. Monitor fields on a regular basis so you will know if aphid numbers become threatening or if Russian wheat aphid damage appears. Watch for greenbug injury in the Imperial Valley.

p. 95, paragraph 2:

If aphids are becoming numerous, ~~you may want to~~ monitor their numbers to keep track of changes . . . If natural control is increasing or hot weather is expected, aphid populations ~~may be~~usually are reduced without the need for insecticide sprays; this may not be the case with the Russian wheat aphid.

p. 96, paragraph 4:

~~At present there are no guidelines for California growing areas. Keep in touch with your local farm advisor, pest control adviser, or county agricultural commissioner for the latest control information. If you are planning to grow a barley forage crop, consider planting oats instead.~~ Apply insecticide if monitoring shows:

5 or more aphids per plant	at the 2-leaf stage
5 or more aphids per tiller	at early tillering
10 or more aphids per tiller	at late tillering
10 or more aphids per tiller	at jointing
20 or more aphids per tiller	at boot
30 or more aphids per tiller	at heading or later

If you are growing a forage crop in the high desert areas or other locations where Russian wheat aphid has been a problem, consider planting oats or a mixture that includes oats.

p. 107, paragraph 5:

In fields where damage has occurred, avoid planting Kanota, Sierra, or Montezuma oats; the cultivar Curt is resistant to damage~~, but seed is no longer available commercially~~.

p. 123:

change footnote to:

** Available from University of California Cooperative Extension offices. Also available at the UC IPM World Wide Web site, http://www.ipm.ucdavis.edu/

Figure 15. Susceptibility of common weeds to herbicides used before or in the small grain crop.

Timing of application	foliar-applied PREPLANT	foliar-applied POSTEMERGENCE						
Selectivity	BROAD-SPECTRUM	GRASS		BROADLEAF				
HERBICIDES	Glyphosate (Roundup)	Paraquat[1] (Gramoxome)	Diclofop (Hoelon)	Difenzoquat[2] (Avenge)	Bromoxynil (Buctril)	Chlorsulfuron (Glean)	Dicamba[1] (Banvel)	2,4-D Amine[1] (various)	MCPA Amine[1] (various)
PERENNIALS									
Crowfoot buttercup	—	P	N	N	N	—	C	P	P
Field bindweed	P	N	N	N	N	N	P	P	P
Johnsongrass	C	N	N	N	N	N	N	N	N
Swamp smartweed	C	P	N	N	N	—	P	C	C
Yellow nutsedge	P	N	N	N	N	N	N	N	N
ANNUAL GRASSES									
Hare (wild) barley	C	P/C*	N	N	N	C	N	N	N
Annual bluegrass	C	P/C*	N	P	N	C	N	N	N
Ripgut brome	C	C	N	N	N	C	N	N	N
Hood canarygrass	C	C	C	N	N	C	N	N	N
Littleseed canarygrass	C	C	C	N	N	C	N	N	N
Foxtails	C	C	N	C	N	N	N	N	N
Wild oat	C	P/C*	C	C	N	C	N	N	N
Rabbitfootgrass (rabbitfoot polypogon)	C	C	C	N	N	N	N	N	N
Italian ryegrass	C	P/C*	C	N	N	C	N	N	N
MUSTARD FAMILY									
Mustards	C	C	N	N	C	C	C	C	C
Wild radish	C	P/C*	N	N	P	C	P	C	P/C*
London rocket	C	C	N	N	C	C	C	C	C
Shepherd's-purse	C	C	N	N	C	C	C	C	C
SUNFLOWER FAMILY									
Mayweed chamomile	C	C	N	N	C	C	C	N	N
Common groundsel	C	C	N	N	P/C*	C	P	C	C
Prickly lettuce	P	C	N	N	C	C	P	C	C
Milkthistles	C	P	N	N	N	—	C	C	P
Bristly oxtongue	—	—	N	N	C	C	P	C	P
Pineapple-weed	—	C	N	N	C	C	P	C	C
Annual sowthistle	C	C	N	N	C	C	C	C	P
Spiny sowthistle	C	N	N	N	N	—	C	—	—
Yellow starthistle	C	N	N	N	C	C	C	C	C
Tarweed	C	C	N	N	C	C	C	P	P
GOOSEFOOT FAMILY									
Fivehook bassia	C	C	N	N	C	—	C	C	N
Nettleleaf goosefoot	C	C	N	N	C	C	C	—	C
Kochia	C	C	N	N	C	P	C	P	P
Common lambsquarters	C	C	N	N	C	C	C	C	C
Russian thistle	C	P	N	N	C	C	C	C	C
OTHER BROADLEAF ANNUALS									
Common chickweed	C	C	N	N	N	C	P	N	N
Filarees	P	C	N	N	N	—	C	C	P
Coast fiddleneck	C	P	N	N	C	C	P	P	P
Henbit	C	C	N	N	N/P*	C	C	C	C
Prostrate knotweed	P	N	N	N	N	C	C	C	C
Miner's lettuce	C	C	N	N	N	C	P	N	N
Burning nettle	C	N	N	N	N	—	N	N	N
Redroot pigweed	C	C	N	N	P	C	C	C	C
Scarlet pimpernel	C	—	N	N	—	C	—	—	—
Redmaids (desert rockpurslane)	C	C	N	N	N	C	C	C	C
Prostrate spurge	C	C	N	N	P	C	P	—	P
Corn spurry	C	C	N	N	N	C	N	N	N
Stickleaf	C	—	N	—	N	C	—	N	N

KEY: C = control
P = partial control
N = no control
— = no information
* = Control varies depending on size of weed at application; the smaller the weed, the better the control.

1. Restricted-use pesticide. Permit required for purchase or use.
2. Difenzoquat cannot be applied to durum wheats or some common wheat cultivars.