Sweet corn information kit

Reprint – information current in 2005



REPRINT INFORMATION - PLEASE READ!

For updated information please call 13 25 23 or visit the website <u>www.deedi.qld.qov.au</u>

This publication has been reprinted as a digital book without any changes to the content published in 2005. We advise readers to take particular note of the areas most likely to be out-of-date and so requiring further research:

- Chemical recommendations—check with an agronomist or Infopest www.infopest.qld.gov.au
- Financial information—costs and returns listed in this publication are out of date. Please contact an adviser or industry body to assist with identifying more current figures.
- Varieties—new varieties are likely to be available and some older varieties may no longer be recommended. Check with an agronomist, call the Business Information Centre on 13 25 23, visit our website www.deedi.qld.gov.au or contact the industry body.
- Contacts—many of the contact details may have changed and there could be several new contacts available. The industry organisation may be able to assist you to find the information or services you require.
- Organisation names—most government agencies referred to in this publication have had name changes. Contact the Business Information Centre on 13 25 23 or the industry organisation to find out the current name and contact details for these agencies.
- Additional information—many other sources of information are now available for each crop. Contact an agronomist, Business Information Centre on 13 25 23 or the industry organisation for other suggested reading.

Even with these limitations we believe this information kit provides important and valuable information for intending and existing growers.

This publication was last revised in 2005. The information is not current and the accuracy of the information cannot be guaranteed by the State of Queensland.

This information has been made available to assist users to identify issues involved in sweet corn production. This information is not to be used or relied upon by users for any purpose which may expose the user or any other person to loss or damage. Users should conduct their own inquiries and rely on their own independent professional advice.

While every care has been taken in preparing this publication, the State of Queensland accepts no responsibility for decisions or actions taken as a result of any data, information, statement or advice, expressed or implied, contained in this publication.





The Chemical Handy Guide lists common pests and diseases of sweet corn and the chemicals registered for their control. Withholding periods are indicated for individual chemicals.

The Chemical Trade Name Handy Guide lists the trade name and the registration status in the different states of Australia of chemicals mentioned in the Chemical Handy Guide.

These registrations are current in April 2005, but are subject to continuous change. Always check the label before use. Updated information on registrations can be obtained from your chemical supplier, Infopest or the Australian Pesticide and Veterinary Medicines Authority (APVMA).

The Crop Management Handy Guide is intedned as a quick reference to the important objectives and actions required at easily identified stages of the crop.

Disclaimer

This is a guide only. The product label is the official authority—use it to confirm all data relating to use of a chemical. In no event shall the authors or their respective organisations be liable for any damages whatsoever resulting from use of the data in this handy guide.

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Chemical handy guide for sweet corn pests

nr = not required; na = not applicable; sl = see label

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	row Seed treatment			7	7	7							7							7	7	7			
soludies	Furrow treat																								7
chlorpyrifos (Qld permit)	Furi				7																				
chlorpyrifos	sl										7			7											
nonizsib	14							7			7														
Jydtəm-noidtsraq	14	7									7				7										
thiodicarb	7									7															
propargite	7																							7	
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alpha-cypermethrin	7									7															
deltamethrin	2									7															
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trichlorfon	7														7										
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Helicoverpa NPV (armigera)	n L						7																		
fatty acid – K salt	r na	7						_															7	7	
Bacillus thuringiensis var, kurstakitk (Btk)	ī		7					7		7															
əvitəA fnəibərgni	Withholding period before harvest (days)	Aphids	Armyworms	Black field cricket	Black field earwig	Black sunflower scarab	Budworms (Heliothis)	Caterpillars (Lepidoptera)	Common armyworm	Corn earworm	Cutworms	Earwigs	Eastern false wireworm	Field crickets	Green vegetable bug	Leafhoppers	Planthoppers	Redshouldered leaf beetle	Southern armyworm	Southern false wireworm	Striate false wireworm	Sugarcane wireworm	Thrips	Two-spotted mites	Wireworms

✓ indicates that a trade product containing the active ingredient is registered or under an APVMA permit in at least one state or territory. For a list of trade products and their registration in all states see the *Chemical trade name handy guide*.

ALWAYS check the label before use, follow the directions and wear protective clothing.

Note that different trade products can have different withholding periods.

Note: treated seed is not suitable for consumption by people or livestock.

Chemical handy guide for sweet corn diseases

Active ingredient	sulfur	copper oxychloride	chlorothalonil	carboxin + thiram	fludioxonil	metalaxyl	terbufos
Withholding period before harvest (days)	0-1	1	1	Seed	d treatme	ents	Pre-plant (seed crops only)
Boil smut				~			
Damping off					V		
Head smut				✓			
Java downy mildew						~	
Nematodes							✓
Rust	~	V					
Seed decay				/			
Seedling blight/rot				V			
Turcicum leaf blight			~				

Chemical use in Victoria

Regulations governing chemical use in Victoria differ to some extent from those applying in other states. For the use of Schedule 7 Chemicals or 'Restricted Chemicals' an Agriculture Chemical Users Permit (ACUP) is required and the use of these chemicals must be strictly in accordance with label directions and records of use must be made and kept.

'Off-label' use is when an agricultural chemical product (not a schedule 7 or restricted chemical) is not used strictly in accordance with label directions. All aspects of such off-label use are the users responsibility including residue controls, environmental safeguards, occupational health and safety and animal welfare. It is unlikely that chemicals used off-label are covered by the manufacturers warranty.

Chemicals must **not** be used unless a permit has been issued by the AVPMA, if they are:

- unregistered;
- used at a rate higher than the maximum application rates as stated for use on the label;
- at intervals more frequent than the intervals for use on the label;
- in a manner or for a purpose if the label specifically states that it must not be used in that manner or for that purpose.

Chemical trade name handy guide for sweet corn pests and diseases

Chemical (active ingredient)	t) Trade names	PIÒ	NSW	Vic	SA	WA	F	Tas	ACT	Chemical class
alpha-cypermethrin	Alfacy Insecticde, Alpha 100, Alpha Duop 100, Alpha-Cyp 100 Duo, Alpha-Cyp ULV, Alpha-Cypermethrin 100, Alpha-Cypermethrin 100 EC, Alpha-Scud Elite, Alpha-Scud ULV, Alphasip Duo, Astound Duo, Buzzard, Centaur 100, Dictate 100, Dictate Duo 100, Dictate ULV, Dominex 100, Dominex Duo, Fastac Duo, Ken-Tac 100, Unialphacyper 100	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Group 3A Insecticide
Bacillus thuringiensis var, kurstakitk (Btk)	Dipel DF, Full-Bac WDG, also an NRA Permit for Qld	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Group 11 C Insecticide
carbaryl	Bugmaster Flowable, Carbaryl 500 Flowable, Carbaryl Wettable Powder	Yes	o N	No	Yes	No No	N ON	ON ON	No	Group 1A Insecticide
carboxin + thiram	Vitavax 200FF	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Group Y Fungicide
chlorothalonil	Applonil 720 Fungicide, Barrack 720, Bravo, Cheers 720, Chlorothalonil 500SC, Yes Chlorothalonil 720, Clash 720, Echo 720 Fungicide, Echo 900, Fung-O-Nil 500, Goldbull Chlorothal Fungicide, Hurrah Fungicide, Unite 720, Whack 500, Whack Fungicide	Yes gicide	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Group Y Fungicide
chlorpyrifos	NRA Permit (Qld)	Yes	No	No	No	No	No	No	No	Group 1B Insecticide
chlorpyrifos	Bar 500 EC, Chlorpyrifos 500, Chlorpyrifos 500 EC, Fortune 500, Generifos 500 EC, Kensban 500, Lorsban 500 EC, Pidgeon's Pest Controller 500, Pest One Agricultural Insecticide, Profos 500, Strike-out 500 EC, Voodoo 500	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Group 1B Insecticide
copper oxychloride	Copperoxy 500 WP, Coppurite, Coppurite DF, Oxydul	Yes	Yes	Yes	Yes	Yes	No	Yes	No	Group Y Fungicide
cypermethrin	Apache 250EC, Boom 200 Insecticide, Cypermethrin 200, Cypermethrin 200 EC, Cypermethrin 250, Cypermethrin 250 EC, Cypermethrin 260 EC, Cypermethrin 40 ULV, Cypershield 200, Cypershield ULV 40, Ken-Cyper 200, Rocyper 250 EC, Scud 200 EC, Scud 40 ULV, Scud Elite, Sonic 200EC, Sonic ULV40	Yes LV, C,	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Group 3A Insecticide
deltamethrin _	Assign, Ballistic EC, Ballistic Elite, Ballistic ULV, Decis Forte ULV, Decis Options, Deltaguard ULV, Deltamethrin Duo, Deltamethrin ULV, Deltashield 27.5, D-Sect EC	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Group 3A Insecticide
diazinon	Diazinon, Diazinon 800	Yes	Yes	Yes	Yes	Yes	No	No	No	Group 1B Insecticide
dicofol	Kelthane MF, Miti-fol EC	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Group 1B Insecticide
dimethoate	NRA Permit (Qld), Thrips	Yes	No	No	No	No	No	No	No	Group 1B Insecticide
dimethoate _	Dimethoate, Dimethoate 400, Dimethoate Insecticide, Rogor, Romethoate, Saboteur, Stalk, Undime 400	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Group 1B Insecticide
endosulfan -	APVMA Permit 8121	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Group 2A Insecticide
esfenvalerate 	Sumi-Alpha Flex Insecticide	Yes	Yes	Yes	Yes	Yes	No	Yes	No	Group 3A Insecticide

Chemical (active ingredient)	nt) Trade names	plo	NSW	Vic	SA	WA	N H	Tas ACT	T Chemical class
fatty acid – K salt	Bugguard, Hitman, Natrasoap, Neemtech	Yes	Yes	Yes	Yes	Yes	Yes Yes	s Yes	Insecticide
fludioxonil	Maxim 100 FS	Yes	Yes	Yes	Yes	Yes	Yes Yes	s Yes	Group L Fungicide
Helicoverpa NPV (armigera) Vivus, Vivus Gold	a)Vivus, Vivus Gold	Yes	Yes	Yes	Yes	Yes	Yes Yes	s Yes	Insecticide
Helicoverpa NPV (zea)	Gemstar	Yes	Yes	Yes	Yes	Yes	Yes Yes	s Yes	Insecticide
imidacloprid	Gaucho 600	Yes	Yes	Yes	Yes	Yes	Yes Yes	s Yes	Group 4A Insecticide
metalaxyl _	Apron XL 350 ES, Mantle, Rampart 350 SD	Yes	No	No	Yes	No	Yes Yes	s No	Group D Fungicide
methomyl	Electra 225, Lannate L, Marlin, Marlin 225, Nudrin 225	Yes	Yes	Yes	Yes	Yes	Yes Yes	s Yes	Group 1 A Insecticide
paraffinic oil	Bioclear, Biopest Paraffin Oil, Trump Spray Oil	No	Yes	Yes	Yes	Yes	Yes Yes	s Yes	Unspecified class
parathion-methyl 	Folidol M500, Methyl Parathion 500, Parathion-Methyl 500	No	Yes	Yes	Yes	Yes	No Yes	s No	Group 1B Insecticide
permethrin 40:60	Ambush, Axe Insecticide, Hellfire 500 EC, Perma 500 EC, Permasect 500, Permekil, Permerid 500 EC, Pounce, Stakeout	Yes	Yes	Yes	Yes	Yes	Yes Yes	s Yes	Group 3A Insecticide
petroleum oil	Sunspray Ultra-fine (Spray oil)	Yes	Yes	Yes	Yes	Yes	Yes Yes	s Yes	Insecticide, spreader
propargite _	Omite 300 W	Yes	Yes	Yes	Yes	Yes	Yes Yes	s Yes	Group 14A Insecticide
pyrethrins + pipernol butoxide	Pyrethrum Insecticide, Py - Bo	Yes	Yes	Yes	Yes	Yes	Yes Yes	s Yes	Group 3A Insecticide
spinosad	Entrust Naturalyte, Success Naturalyte	Yes	Yes	Yes	Yes	Yes	Yes Yes	s Yes	Group 5A Insecticide
sulfur	Brysulf, Brysulf 800 WP, Brysulf 800 WG, Cosavet, Flowable Sulphur, Kumulus DF, Lime Sulphur, Microsul DF, Microthiol Disperss, Scarf DF, Sulfostar DF, Sulfur, Sulphur DF, Sulphur Fungicide and Miticide, Sulphur Fungicide & Miticide, Sulphur Spray, Thiovit Jet, Top Wettable Sulphur, Wettable Sulphur	Yes	Yes	Yes	Yes	Yes	Yes Yes	s Yes	Group Y Fungicide
terbufos _	Counter 150 G	Yes	Yes	Yes	Yes	Yes	Yes Yes	s Yes	Group 1B Insecticide
terbufos	APVMA Permit 5867	No	No	Yes	No	No	No No	No	Group 1B Insecticide
thiodicarb _	Larvin 375, Larvin 800 WG	Yes	Yes	Yes	Yes	No	No Yes	s No	Group 1 A Insecticide
trichlorfon 	Dipterex 500 SL, Lepidex 500	No	Yes	Yes	Yes	Yes	Yes Yes	No	Group 1B Insecticide

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Crop management handy guide

	Pre-plant	Planting to tasselling	Tasselling to end of silking	End of silking to harvest	After harvest
	0/9				
Time from planting		up to 66 days	48 – 85 days	60 – 103 days	
Time for each stage		35 – 66 days	13 – 20 days	12 – 18 days	
Management objectives	Well-prepared moist soil, free of soil insect pests, and with no pest host plants around the block.	Establish a uniform stand of healthy plants. Maintain plant health and control pests, particularly leafhoppers. Maintain moisture levels.	Maintain plant health and control pests, particularly heliothis. Maintain moisture levels. DO NOT allow plants to stress.	Maintain plant health and control pests. Maintain moisture levels. DO NOT allow plants to stress.	Clean up the field to prevent pest, disease and weed problems in future crops.
Weed control	Do not allow weeds to seed.	Control weeds, cultivate and/or apply herbicide.	Rogue out large weeds before they seed.	Rogue out large weeds before they seed.	Do not allow weeds to seed.
Pest and disease control	Ensure all plant residue has broken down. Check for soil insect pests. Calibrate spray equipment.	Monitor for and control cutworm, wireworm, aphids, armyworms, heliothis, mites and planthoppers. Control leafhoppers to prevent wallaby ear. Spray to control diseases if indicated by monitoring and weather conditions.	Monitor for pests and diseases. Control aphids, armyworms, heliothis, mites, sorghum head caterpillar and thrips. Spray to control diseases if indicated by monitoring and weather conditions.	Monitor for pests and diseases. Control aphids, heliothis, mites and thrips. Spray to control diseases if indicated by monitoring and weather conditions.	Remove drip tape, if used, and then cultivate in crop residue.
Plant nutrition	Apply lime or dolomite if required. Apply basal fertiliser, this may also be done at planting.	Monitor plant nutrient levels with sap tests. Apply trace elements and side-dressing fertiliser if necessary.	All side-dressings and foliar nutrients should have been applied before tasselling.		
Irrigation	Ensure soil is moist for planting. Lay drip tape, unless laid when planting.	Plant into moist soil. Keep soil moist until plants are well established. Install tensiometers in pairs, at 20 cm and 60 cm, one pair per block or 5 ha. Irrigate when tensiometers reach 40 – 60 centibars, depending on soil type.	Good water management is critical through this period. Maintain even soil moisture. Irrigate when tensiometers reach 35 – 50 centibars, depending on soil type.	Good water management is critical through this period. Maintain even soil moisture. Irrigate when tensiometers reach 35 – 50 centibars, depending on soil type.	Remove drip tape, if used.