

## DITHIOCARBAMATES (105)

### APPRAISAL

Mancozeb, maneb and propineb were reviewed in the periodic review programme in 1993 and MRLs for dithiocarbamates were recommended.

Metiram, another dithiocarbamate, has now been evaluated by the present Meeting as a new compound, and the evaluation is elsewhere. The maximum residues arising from the use of metiram according to GAP do not exceed the current recommendations for dithiocarbamates, where these exist, but additional MRLs are needed for commodities that are not already covered.

The Meeting believed that it would be useful to have a consolidated list of the current recommendations that showed the compound(s) contributing to the recommendation for each commodity, and such a list is given in the Table of recommendations below.

The 1993 JMPR had estimated a maximum residue level of 2 mg/kg for dithiocarbamates on mangoes arising from the use of mancozeb (Report, p.85), but the entry had been inadvertently omitted from Annex I. The entry is included in the following Table as a JMPR recommendation.

The Meeting noted that there is a CXL for dithiocarbamate in endive, but no recommendation had been made during the 1993 periodic review of mancozeb, maneb and propineb. In the absence of adequate data the recommendation for an MRL should have been withdrawn. The recommendation to withdraw the CXL is now included in the following Table.

### RECOMMENDATIONS

The maximum residue levels listed below are recommended for use as MRLs.

Definition of the residue: The MRLs refer to total dithiocarbamates, determined as CS<sub>2</sub> evolved during acid digestion and expressed as mg CS<sub>2</sub>/kg.

Commodity		Recommended MRL, mg/kg	Compounds on which recommendations are based <sup>1</sup>			
CCN	Name		mancozeb	maneb		
AM 0660	Almond hulls	20				
TN 0660	Almonds	0.1*	mancozeb	maneb		
VS 0621	Asparagus	0.1	<u>mancozeb</u>			
FI 0327	Banana	2	<u>mancozeb</u>			
GC 0640	Barley	1	<u>mancozeb</u>			
AS 0640	Barley straw and fodder, dry	25	<u>mancozeb</u>	maneb		
VB 0041	Cabbages, Head	5	mancozeb	<u>maneb</u>		
VR 0577	Carrot	1	<u>mancozeb</u>			
VS 0624	Celery	Withdrawn <sup>2</sup>				
FS 0013	Cherries	Withdrawn <sup>2</sup>				

Commodity		Recommended MRL, mg/kg	Compounds on which recommendations are based <sup>1</sup>			
CCN	Name		<u>mancozeb</u>	<u>maneb</u>	<u>propineb</u>	<u>metiram</u>
VP 0526	Common bean (pods and/or immature seeds)	1				<u>metiram</u>
VL 0510	Cos lettuce	10		<u>maneb</u>		
FB 0265	Cranberry	5	<u>mancozeb</u>			
VC 0424	Cucumber	2	<u>mancozeb</u>	<u>maneb</u>		
FB 0021	Currants, Black, Red, White	10	<u>mancozeb</u>			<u>metiram</u>
MO 0105	Edible offal (Mammalian)	0.1	<u>mancozeb</u>			<u>metiram</u>
PE 0112	Eggs	0.05*	<u>mancozeb</u>			
VL 0476	Endive	Withdrawn <sup>4</sup>				
VA 0381	Garlic	0.5	<u>mancozeb</u>			
FB 0269	Grapes	5	<u>mancozeb</u>	<u>maneb</u>	<u>propineb</u>	<u>metiram</u>
DH 1100	Hops, dry	30				<u>metiram</u>
VL 0480	Kale	15	<u>mancozeb</u>	<u>maneb</u>		
VA 0384	Leek	0.5	<u>mancozeb</u>			
VL 0482	Lettuce, Head	10	<u>mancozeb</u>	<u>maneb</u>		<u>metiram</u>
AS 0645	Maize fodder	2	<u>mancozeb</u>			
FC 0003	Mandarins	10	<u>mancozeb</u>			
FI 0345	Mango	2	<u>mancozeb</u>			
MM 0095	Meat	0.02*	<u>mancozeb</u>			<u>metiram</u>
VC 0046	Melons, except Watermelon	0.5	<u>mancozeb</u>		<u>propineb</u>	
ML 0106	Milks	0.05*	<u>mancozeb</u>			<u>metiram</u>
VA 0385	Onion, Bulb	0.5	<u>mancozeb</u>		<u>propineb</u>	
FC 0004	Oranges, Sweet, Sour	2	<u>mancozeb</u>			
FI 0350	Papaya	5	<u>mancozeb</u>			
FS 0247	Peach	Withdrawn <sup>5</sup>				
SO 0697	Peanut	0.1*	<u>mancozeb</u>			
AL 0697	Peanut fodder	5	<u>mancozeb</u>			
VO 0445	Peppers, Sweet	1	<u>mancozeb</u>	<u>maneb</u>		
FS 0014	Plums (including Prunes)	Withdrawn <sup>2</sup>				
FP 0009	Pome fruits	5	<u>mancozeb</u>		<u>propineb</u>	<u>metiram</u>
VR 0589	Potato	0.2	<u>mancozeb</u>	<u>maneb</u>	<u>propineb</u>	<u>metiram</u>
PO 0111	Poultry, Edible offal of	0.1	<u>mancozeb</u>			
PM 0110	Poultry meat	0.1	<u>mancozeb</u>			
VC 0429	Pumpkins	0.2	<u>mancozeb</u>			
VA 0389	Spring onion	10		<u>maneb</u>		
VC 0431	Squash, Summer	1	<u>mancozeb</u>			
FB 0275	Strawberry	Withdrawn <sup>5</sup>				
VR 0596	Sugar beet	0.5	<u>mancozeb</u>	<u>maneb</u>		
AV 0596	Sugar beet leaves or tops	20	<u>mancozeb</u>	<u>maneb</u>		
VO 0447	Sweet corn (corn-on-the-cob)	0.1*	<u>mancozeb</u>			
VO 0448	Tomato	5	<u>mancozeb</u>	<u>maneb</u>	<u>propineb</u>	<u>metiram</u>
VC 0432	Watermelon	1	<u>mancozeb</u>	<u>maneb</u>		
GC 0654	Wheat	1	<u>mancozeb</u>	<u>maneb</u>		<u>metiram</u>

Commodity		Recommended MRL, mg/kg	Compounds on which recommendations are based <sup>1</sup>			
CCN	Name		<u>mancozeb</u>	maneb		metiram
AS 0654	Wheat straw and fodder, dry	25	<u>mancozeb</u>	maneb		metiram
VC 0433	Winter squash	0.1	<u>mancozeb</u>			

<sup>1</sup> The underlined compound(s) have principally determined the estimated maximum residue level

<sup>2</sup> 1993 recommendation

<sup>3</sup> 1995 recommendation

<sup>4</sup> 1995 recommendation, omitted in 1993 in error

<sup>5</sup> Withdrawal recommended by 1993 JMPR; withdrawn by 21st CAC