

# Pesticide Risk Reduction Programme – Ethiopia (PRRP-ETHIOPIA)

## GOOD AGRICULTURAL PRACTICE FOR CHEMICAL PESTICIDES WITH HIGH ACUTE AND CHRONIC RISKS

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joint collaborative programme on pesticide registration and post-registration



MoA



ALTERRA



**Towards a sustainable use of pesticides in Africa**

# CONTENT

- INTRODUCTION
- PESTICIDES WITH HIGHEST COMBINED ACUTE AND CHRONIC RISKS
- PESTICIDES PROPOSED FOR A PILOT MRL SETTING AND RISKANALYSIS
- GAP FOR THESE PESTICIDES

# Introduction

- It is crucial to get information on the GAP (dosage , number of application etc)to conduct Environmental Risk assessment
- Hence pesticide registration information uploaded in the data base system of FAO template for PSMS use has been used to tabulate GAP information for pesticides with high risk
- Moreover information on central rift valley farmers field practice has been described

# PSTICIDES WITH HIGHEST COMBINED AND CHRONIC RISK

ACTIVE INGREDIENT	PESTS	RELEVANT CROPS
DIMETHIOTE	WHEAT APHID	BARELEY
ENDOSULFAN	AFRICAN BOLLWORM	COTTON
2,4-D	BROAD LEAF WEEDS	CEREALS,WHEAT,MAIZE TEF
DELTHAMETHRIN	BOLLWORM,LEAFHOPPERS	COTTON
ATRAZINE	COMPLEX WEEDS	MAIZE
MANCOZEB	LATE BLIGHT	TOMATO
LAMBDAHALOTHHRIN	BOLLWORM,MOSQUITO,C OTTON PESTS	MAIZE,COTTON
MALATHION	SWEET POTATO BUTTERFLY	SWEET POTATO
DICOFOL	RED SPIDER MITES	COTTON
ABAMECTIN	SPIDER MITES	FLOWER AND STRAWBERRY
GLYPHOSATE	GRASS AND BROAD LEAF WHEAT	COFFEE

# PESTICIDES PROPOSED FOR PILOT MRL SETTING

PESTICIDES	CROP
ENDOSULFAN	COTTON ,MAIZE
METALAXYL/MANCOZEB	POTATO,ONION,TOMATO
LAMBDAHALOTHHRIN	COTTON FLOWER,MAIZE
ATRAZINE	MAIZE,SUGARECANE
DIMETHIOATE	GREEN BEANS,CABBAGE,POTATO,FIE LD PEAS
MALATHION	CEREALS, MAIZE(STORED),SWEET POTATO,COTTON

**GOOD AGRICULTURAL PRACTICE FOR CHEMICAL PESTICIDES (SOME OF THE ENTRIES ARE BASED ON FAO PSMS TEMPELATE )**

ENTRY ID	ACTIVE INGREDIENT	CONCENTRATION	PEST	CROP	PHI	DOSAGE	# of applications & interval b/n application	MRL
7	DIMETHIOTE	400g/l	BEAN FLY,BEAN APHIDS, THRIPS	FRENCH BEAN		1-1.2 L/HA		0.02 Mg/Kg
7	>>	"	AFRICAN BOLL WORM	TOMATO		1-1.2 L/HA		0.02 Mg/Kg
7	>>	"	CABBAGE APHIDS	CABAGE		1-1.2L/HA		0.02 Mg/Kg

# GAP ENDOSULFAN

ENTRY ID	ACTIVE INGREDIENT	CONCENTRATION	PEST	CROP	PHI	DOSAGE	# of applications & interval b/n applican.	MRL
106	ENDOSULFAN	250G/L	ABW	COTTON		3L/HA	2 Application and one week bn app	COTT. SEEDS 0.03 Mg/Kg
106	>>	250G/L	ABW	MAIZE		2-2.5L/H	2 times treatment interval 7days	0.02 Mg/Kg
106	>>	250G/L	ABW	SORGHU		2-2.5L/H		0.02

# GAP Endosulfan cont.

ENTRY ID	ACTIVE INGREDIENT	CONCENTRATION	PEST	CROP	PHI	DOSAGE	# of application & interval b/n application	MRL
107	>>	350G/L	ABW	COTTON		1.5L/H A	1-3 times	COTT. SEEDS 0.03 Mg/Kg
107	>>	350G/L	ABW	MAIZE		1.5- 2/HA	>>	0.02 Mg/Kg
107	>>	350G/L	ABW	SORGHUM		1.5- 2L/HA	>>	0.02 Mg/Kg
107	>>	350G/L	ABW	SORGHUM		1.5- 2L/HA	>>	0.02 Mg/Kg



# GAP Endosulfan cont.

ENTRY ID	ACTIVE INGREDIENT	CONCENTRATION	PEST	CROP	PHI	DOSAGE	# of application & interval b/n application	MRL
<b>108</b>	<b>&gt;&gt;</b>	<b>250G/L</b>	<b>ABW</b>	<b>COTTON</b>		<b>3L/HA</b>	<b>2 Application and one week b/n app</b>	<b>COTT. SEEDS 0.03 Mg/Kg</b>
<b>108</b>	<b>&gt;&gt;</b>	<b>250G/L</b>	<b>ABW</b>	<b>MAIZE</b>		<b>2/HA</b>	<b>&gt;&gt;</b>	

# GAP Endosulfan cont.

ENTRY ID	ACTIVE INGREDIENT	CONCENTRATION	PEST	CROP	PHI	DOSAGE	# of application & interval b/n application	MRL
<b>109 &amp; 110</b>	>>	250G/L	ABW	<b>COTTON</b>		<b>3L/HA</b>		COTT. SEEDS 0.03 Mg/Kg
<b>109 &amp; 110</b>	>>	250G/L	ABW	<b>MAIZE</b>		<b>2/HA</b>		0.02 Mg/Kg
<b>109 &amp; 110</b>	>>	250G/L	ABW	<b>SORGHUM</b>		<b>2L/HA</b>		0.02 Mg/Kg
<b>109</b>	>>	250G/L	ABW	<b>TOBACC</b>		<b>2L/HA</b>		-

# GAP 2,4-D

ENTRY ID	ACTIVE INGREDIENT	CONCENTRATION	PEST	CROP	PHI	DOSAGE	# of application & interval b/n application	MRL
115, 116, 118 154,163, 165	2,4-D	720G/L	Broad leaved weed	wheat		1L/HA	1time	0.05 Mg/Kg
125	>>	720G/L	>>	cereals		1-2L/HA	.>>	0.05 Mg/Kg
131,173	>>	720G/L	>>	Tef		1-2L/HA	>>	0.05 Mg/Kg

# GAP Delthamethrin

ENTRY ID	ACTIVE INGREDIENT	CONCENTRATION	PEST	CROP	PHI	DOSAGE	# of applicatio & interval b/n application	MR L
25,26,27	DELTHAMETHRIN	25kg/HA	ABW & leafhoppers	COTTON		3 L/HA	When pest appears	
28	>>	>>	Aphids, thrips, caterpillars	Flower		0.66 LIT./HA.		
30		2kg/kg	Maize weevil	Maize		50G/Quintal	One time	2.0 Mg/Kg
31		60G/l	Sweet potato	Sweet potato		1.0-1.5 li/ha		0.05



# GAP Atrazine

ENTRY ID	ACTIVE INGREDIENT	CONCENTRATION	PEST	CROP	PHI	DOSAGE	# of applicatio & interval b/n application	MR L
120	Atrazine	200g/l	Grass and perennial broadleaved weeds	Maize	-	4 lit/ha	-	0.2 Mg/Kg
121	>>	250g/l	Annual and perennial grass	sugarcane	-	0.840kg/ha		



# GAP lambda cyhalothrin

ENTRY ID	ACTIVE INGREDIENT	CONCENTRATION	PEST	CROP	PHI	DOSAGE	# of applicatio & interval b/n application	MR L
59	λ CYHALOTHRIN	50g/l	ABW	COTTON		250-450ML/HA		-
61	>>	25g/l	MOSQUETOS	-		25 ML/LIT OF WATER/NET		
65	>>	8G/L	COTTON PESTS	COTTON		2.5-3LIT/HA		
66	.>>	50G/L	>>	>>		0.2-0.5 L/HA		
67,68	>>	>>	MAIZE STALK	MAIZE		0.4 & 0.21/HA		



# GAP Malathion

ENTRY ID	ACTIVE INGREDIENT	CONCENTRATION	PEST	CROP	PHI	DOSAGE	# of application & interval b/n application	MRL
45	MALATHION	50g/KG	MAIZEWEEVIL	MAIZE		20-50GM/QUINTAL		0.05 MG/KG
46	>>	500G/l	SWEET POTATO BUTTERFLY	-		1-2LIT/HA		0.2 Mg/Kg
55	>>	500G/L	ARMYWORM, LOCUST GRASSHOPPER	CEREALS ,		1-2 LIT/HA		0.05 MG /KG
69	.>>	500G/L	>>	CEREA		2 L/HA		-



# GAP ABAMECTIN

NTRY ID	ACTIVE INGREDIENT	CONCENTRATION	PEST	CROP	PHI	DOSAGE	# of application & interval b/n application	MRL
244	ABAMECTIN	180G/L	SPIDERMITES	FLOWER		25-50ML/100L OF WATER		
245			SPIDERMITES	FLOWER		0.5LIT/HA		
				STRAWBERRY		0.5 LIT./HA.		0.02 Mg/Kg

## GAP cont..

ENTRY ID	ACTIVE INGREDIENT	CONCENTRATION	PEST	CROP	PHI	DOSAGE	# of application & interval b/n application	MRL
140	GLYPHOSATE	360G/L	BROAD LEAF WEEDS	COFFEE		3-4LI/HA		0.1M G/KG
141	>>	480G/L	>>	WASTE LANMD		>>		>>
142	>>	360G/L	GRASS WEEDS	COFFEE		3-4LIT/HA		
145	>>	180G/L	>>	>>		3LIT/HA		
146	>>	480G/L	COFFEE WEEDS	>>	5-7DAYS	3-5LI/HA		

# GAP GLYPHOSATE

ENTRY ID	ACTIVE INGREDIENT	CONCENTRATION	PEST	CROP	PHI	DOSAGE	# of application & interval b/n application	MRL
146	GLYPHOSATE	480G/L	ANNUAL AND PERENIAL WEEDS	CITRUS	5-7 DAYS	3-5LI/HA		0.1MG/KG
147	>>	480G/L	>>	CITRUS		>>		ORANGE 0.5MG/KG GRAPEO.1 MG/KG
151	>>	360G/L	SEDGES , GRASS,PR RENIAL AND GRASS WEEDS	COFFEE		4LIT/HA		0.1MG/KG
161	>>	>>	CANOLE	>>		>>		>>

# GAP –METALAXYL/MANCOZEB

ENTRY ID	ACTIVE INGREDIENT	CONCENTRATION	PEST	CROP	PHI	DOSAGE	# of application & interval b/n application	MRL
221	METALAXYL/MANCOZEB	75G/KG/ ,560G/K G	FUNGUS	PEPPER,		2-5KG/HA		MANCOZEB 5.0 Mg/Kg METALAXYL 0.5 Mg/Kg
221	>>	>>		ONION		>>		MANCOZEB 1.0 Mg/Kg METALAXYL 0.5 Mg/Kg
221	>>	>>		POTATO		>>		MANCOZEB 0.3 Mg/Kg METALAXYL 0.05 Mg/Kg
221				TOMATO		>>		MANCOZEB 3.0 Mg/Kg METALAXYL 0.2 Mg/Kg



# Farmers' pesticide use practice in

Trade Name	Active ingredient	Type of crop	Type of Pest	Frequency	Months	Rate/Dose according to the label
<b>Fungicides</b>						
mancolaxyl 72 WP	mancozeb 64%+ metalaxyl64% wp	Onion	Purple blotch	8 times	Sept.- Dec.	3kg/ha
mancolaxyl 72 WP	mancozeb 64%+ metalaxyl64% wp	Tomato	Late blight	12 times	Sept.- Dec.	2kg/ha
Agro-laxyl M2-63.5WP	Metalaxyl + Mancozeb	Tomato	Late blight	9 times	Sept.- Dec.	3kg/ha
Victory 72 WP	Metalaxyl + Mancozeb	Tomato	Late blight	9 times	Sept.- Dec.	1Kg/ha
	Mancozb 64%					



# Farmers' pesticide use practice in

Trade Name	Active ingredient	Type of crop	Type of Pest	Frequency	Months	Rate/Dose according to the label
Fungicides (Cont)						
Masco® 8-64	Mancozeb 64%WP	Onion	Late blight	5 times	Oct.-Nov.	2.5kg/ha
Mancozeb	mancozeb 80% wp	Tomato	Late blight	12 times	Sept.- Dec.	1.5Kg/ha
Ridomil 65WG	Metalaxyl- M68%WG	Onion	Purple blotch	4 times	Oct.-Nov.	1Kg/ha
Ridom 80 % WP	Mancozeb 800g/Kg	Onion	Purple blotch	8 Times	Sept.- Dec.	1Kg/ha
Unizeb 80% WP	mancozeb 80% wp	Onion	Fungus	4 times	Novembe r	1.5Kg/ha
Mancoz 80%	Mancozeb				Sept.-	

# Farmers' pesticide use practice in

Trade Name	Active ingredient	Type of crop	Type of Pest	Frequency	Months	Rate/Dose according to the label
Fungicides (Cont)						
Cruzate 43.9%	Cymoxnil + Copper oxychloride)	Cabbage	Fungal disease(po wdery mildew)	8 Times	Oct.-Nov.	2.5Kg/ha
Cruzate	Cymoxnil + Copper oxychloride)	Onion	Purple blotch,dow nymildew and late blight	2 times	Ju ne-July	2.5kg/ha
Bayleton 25 WP	Triadimegon 250g/Kg	Tomato	Fungus(po wdery mildew)	12 times	Sept.- Dec.	4kg/ha
	Triadimeton				Sept.-	

# Farmers' pesticide use practice in the central rift valley

Trade Name	Active ingredient	Type of crop	Type of Pest	Frequency	Months	Rate/Dose according to the label
<b>Insecticides</b>						
Selecron 720%Ec	Profenfos "Q" 720g/l	Onion	Thrips	10 times	sep.-Dec.	0.5lt/ha
Mitgan 18.5%eEC	Dicofol 185g/L	Tomato	Spider Mites	8 Times	Sept.- Dec.	2L/ha
Polytrin 315	Profenfos 300 gm/l +Lamdacyhal othrin 15g/l	Onion	Insects(thri ps)	7 times	Sept.- Dec.	1L/ha
Thionex 35%	Endosulfan3 5% EC	Tomato	Ball worm	8 times	Sept.- Dec.	2L/ha
	Profenofos					

# Farmers' pesticide use practice in

Trade Name	Active ingredient	Type of crop	Type of Pest	Frequency	Months	Rate/Dose according to the label
Insecticides						
Selecron 720%Ec	Profenfos "Q" 720g/l	Onion	Thrips	8 times	Sept.- Dec.	1L/ha
Karate 5 % EC	Lambadcyh ylotrin 50g/L	Papaya	Sucking insects	5 times	Sept.- Dec.	1L/ha
Mitgan 18.5%eEC	Dicofol 185g/L	Papaya	Spider Mites	5 times	Sept.- Dec.	2L/ha
Profit 720EC	Profenofos 72%EC	Tomato	Insect	3 times	Oct.- Nov.	1.5lt/ha
Selecron 720%Ec	Selecron 720g/L	Onion	Thrips	6 times	Oct.- Nov.	1lt/ha

# Farmers' pesticide use practice in

Trade Name	Active ingredient	Type of crop	Type of Pest	Frequency	Months	Rate/Dose according to the label
<b>Insecticides</b>						
Selecron 720%Ec	Profenofos "Q" 720g/L	Onion	Thrips	5 times	Sept.- Dec.	1lt/ha
Ethiolathion 50 % EC	Ethiolathion 500g/L	Tomato	Worms	4 times	Sept.- Dec.	2lt/ha
Thionex 35%	Endosulfan 350g/L	Tomato	Boll worm	2 times	Sept.- Dec.	2lt/ha
Ethiozinon 60% EC	Diaozino n 600g/L	Tomato	Boll worm	5 times	Sept.- Dec.	1Kg/ha
Polytrin®KA3 15 EC	Polytrin 300g/L	Onion	Insects	4 times	Oct.-Nov.	1.5lt/ha
Selecron	Profenofos				Sept.-	

# Farmers' pesticide use practice in

Trade Name	Active ingredient	Type of crop	Type of Pest	Frequency	Months	Rate/Dose according to the label
Insecticides						
Ethiodemet hrin 2.5%EC	Deltamethr in 25g/lit	Onion	Thrips	16 times	Oct.- Nov.	1lt/ha
Ethiothoate 40 % EC	Dimethoat e 400 g/lit	Tomato	White flies	9 times	Sept.- Dec.	1lt/ha
Pyrinex 48 EC	Chlorphrfos ethyl 48 % EC	Onion	Thrips	12 times	Sept.- Dec.	1lt/ha
Acarmic	Amitraz 12.5 WP	Cattles	Thicks	Once	0	1litre
Roger	Daimethoat e 40 % EC	Onion	Thrips	10 times	Sept.- Dec.	1lt/ha
Thionex	Endosulfan				Sept.-	

## Farmers' pesticide use practice in the central rift valley

Trade Name	Active ingredient	Type of crop	Type of Pest	Frequency	Months	Rate/Dose according to the label
<b>Herbicides</b>						
Sanaphen D 720 SL	2,4-D amine salt 720g/L	Wheat	Weeds	Once	June-July	1lt/ha
2,4-D Amine salt	2,4-D 720g/L	Teff, Wheat, Maize	Broad leaf Weeds	Once	Sept.-Dec.	1L/ha
U-46	2,4-D 720g/L	Wheat	Bread leaf Weeds	once	Oct.-Nov.	1L/ha
2,4-D amine salt	2,4-D 720g/L	Maize	Broad leaf Weeds	1 times	July	1lt/ha
Topic	Clodinafop-Propargyl	Wheat	Grass weeds	Once	Sept.-Dec.	1lt/ha





***THANK YOU***