

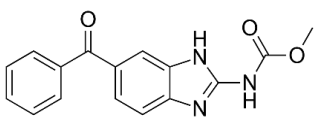
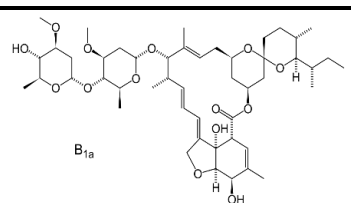
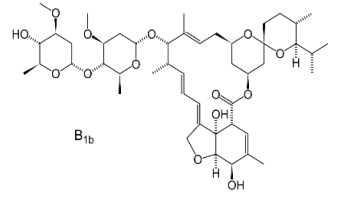
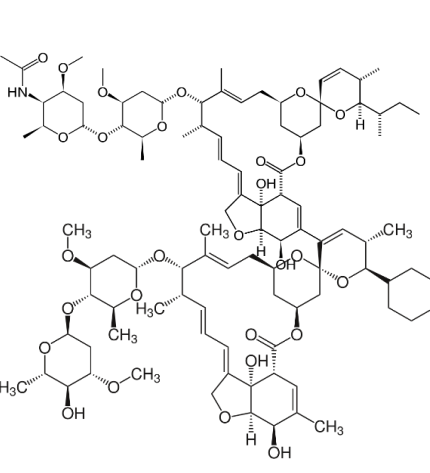
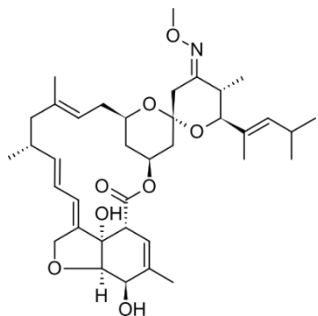
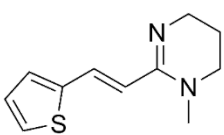
Anthelmintic Veterinary Medicines Interactions with the Soil Microbiota

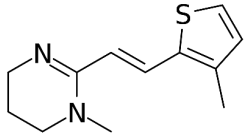
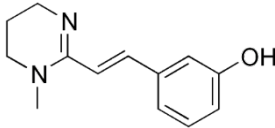
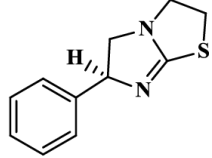
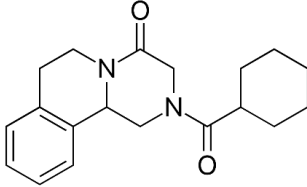
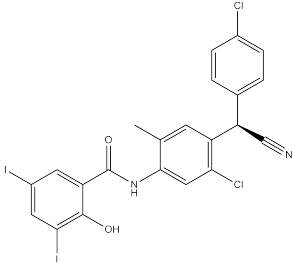
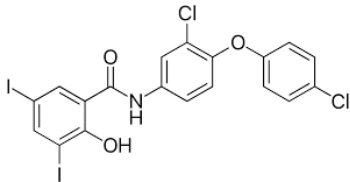
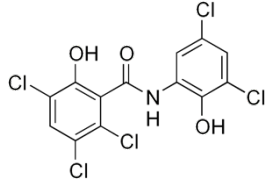
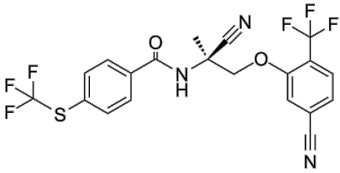
Efstathios Lagos and Dimitrios G. Karpouzas*

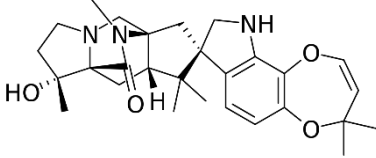
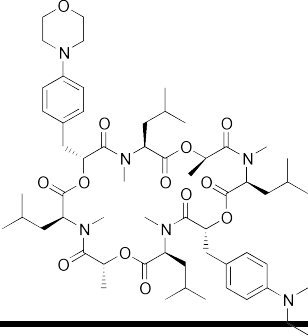
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Supplementary Information: Table 1

Compound name	IUPAC Chemical name	Chemical structure	Mode of action
Benzimidazoles	albendazole	methyl N-(6-propylsulfanyl-1H-benzimidazol-2-yl) carbamate	Compounds bind to the β -tubulin leading to suppression of its polymerization and disruption of cell mitosis
	ricobendazole	methyl N-(6-propylsulfinyl-1H-benzimidazol-2-yl) carbamate	
	fendazole	methyl N-(6-phenylsulfanyl-1H-benzimidazol-2-yl) carbamate	
	oxfendazole	methyl N-[6-(benzenesulfinyl)-1H-benzimidazol-2-yl] carbamate	
	thiabendazole	4-(1H-benzimidazol-2-yl)-1,3-thiazole	
	flubendazole	methyl N-[6-(4-fluorobenzoyl)-1H-benzimidazol-2-yl] carbamate	

	mebendazole	methyl N-(6-benzoyl-1H-benzimidazol-2-yl) carbamate		
Macrocyclic Lactones	ivermectin	(1R,4S,5'S,6R,6'R,8R,10E,12S,13S,14E,16E,20R,21R,24S)-6'-[(2R)-butan-2-yl]-21,24-dihydroxy-12-[(2R,4S,5S,6S)-5-[(2S,4S,5S,6S)-5-hydroxy-4-methoxy-6-methyloxan-2-yl]oxy-4-methoxy-6-methyloxan-2-yl]oxy-5',11,13,22-tetramethylspiro[3,7,19-trioxatetracyclo[15.6.1.14,8.020,24]pentacos-10,14,16,22-tetraene-6,2'-oxane]-2-one		
	eprinomectin	N-[(2S,3R,4S,6S)-6-[(2S,3S,4S,6R)-6-[(1'R,2R,3S,4'S,6S,8'R,10'E,12'S,13'S,14'E,16'E,20'R,21'R,24'S)-2-[(2S)-butan-2-yl]-21',24'-dihydroxy-3,11',13',22'-tetramethyl-2'-oxospiro[2,3-dihydropyran-6,6'-3,7,19-trioxatetracyclo[15.6.1.14,8.020,24]pentacos-10,14,16,22-tetraene]-12'-yl]oxy-4-methoxy-2-methyloxan-3-yl]oxy-4-methoxy-2-methyloxan-3-yl]acetamide		Allosteric antagonists for ligand-gated chloride channels, particularly those controlled by the neurotransmitters γ -aminobutyric acid (GABA) and glycine
	doramectin	(1'R,2R,3S,4'S,6S,8'R,10'E,12'S,13'S,14'E,16'E,20'R,21'R,24'S)-2-cyclohexyl-21',24'-dihydroxy-12'-[(2R,4S,5S,6S)-5-[(2S,4S,5S,6S)-5-hydroxy-4-methoxy-6-methyloxan-2-yl]oxy-4-methoxy-6-methyloxan-2-yl]oxy-3,11',13',22'-tetramethylspiro[2,3-dihydropyran-6,6'-3,7,19-trioxatetracyclo[15.6.1.14,8.020,24]pentacos-10,14,16,22-tetraene]-2'-one		
	moxidectin	(1R,4S,4'E,5'S,6R,6'S,8R,10E,13R,14E,16E,20R,21R,24S)-21,24-dihydroxy-4'-methoxyimino-5',11,13,22-tetramethyl-6'-[(E)-4-methylpent-2-en-2-yl]spiro[3,7,19-trioxatetracyclo[15.6.1.14,8.020,24]pentacos-10,14,16,22-tetraene-6,2'-oxane]-2-one		
Tetrahydropyrimidines	pyrantel	1-methyl-2-[(E)-2-thiophen-2-ylethenyl]-5,6-dihydro-4H-pyrimidine		

	morantel	1-methyl-2-[(E)-2-(3-methylthiophen-2-yl)ethenyl]-5,6-dihydro-4H-pyrimidine		
	oxantel	3-[(E)-2-(1-methyl-5,6-dihydro-4H-pyrimidin-2-yl)ethenyl]phenol		
Imidazothiazoles	levamisole	(S)-6-Phenyl-2,3,5,6-tetrahydroimidazo[2,1-b][1,3]thiazole		Nicotinic acetylcholine receptor (nAChR) agonists
Pyrazinoisoquinolines	praziquantel	2-(cyclohexanecarbonyl)-3,6,7,11b-tetrahydro-1H-pyrazino[2,1-a]isoquinolin-4-one		acting on the calcium ion channels
salicylamides	closantel	N-[5-chloro-4-[(4-chlorophenyl)-cyanomethyl]-2-methylphenyl]-2-hydroxy-3,5-diiodobenzamide		Decoupling oxidative phosphorylation and inhibiting the production of ATP
	rafoxanide	N-[3-chloro-4-(4-chlorophenoxy)phenyl]-2-hydroxy-3,5-diiodobenzamide		
	oxyclozanide	2,3,5-trichloro-N-(3,5-dichloro-2-hydroxyphenyl)-6-hydroxybenzamide		
amino-acetonitrile derivatives (AADs)	Monepantel	N-[(2S)-2-cyano-1-[5-cyano-2-(trifluoromethyl)phenoxy]propan-2-yl]-4-(trifluoromethylsulfanyl)benzamide		Agonist of nematode specific MPTL-1 & ACR-20 receptors

spiroindoles	derquantel	(1S,6R,7R,9S,11R)-6-hydroxy-4',4',6,10,10,13-hexamethylspiro [3,13-diazatetracyclo [5.5.2.01,9.03,7] tetradecane-11,8'-9,10-dihydro-[1,4] dioxepino[2,3-g]indole]-14-one		Antagonist of the nicotinic acetylcholine receptor
cyclooctadepsipeptides	emodepside	(3S,6R,9S,12R,15S,18R,21S,24R)-4,6,10,16,18,22-hexamethyl-3,9,15,21-tetrakis(2-methylpropyl)-12,24-bis[(4-morpholin-4-ylphenyl) methyl]-1,7,13,19-tetraoxa-4,10,16,22-tetrazacyclotetracosane-2,5,8,11,14,17,20,23-octone		Acts on calcium-activated potassium channel (SLO-1)