

# Nematode WG – Nematicide MOA Classification Groups

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Nematicide MOA Group	Mode of Action	Chemical Structure Group	Insecticide/ Fungicide MOA Group
N-1A N-1B	Nerve Action. Acetylcholinesterase (AChE) inhibitors	A. Carbamates B. Organophosphates	IRAC: 1A, 1B
N-2	Nerve Action. Glutamate-gated chloride channel (GluCl) allosteric modulators	Avermectins	IRAC: 6
N-3	Mitochondrial complex II electron transport inhibitors. Succinate-coenzyme Q reductase.	Pyridinyl-ethyl-benzamides; Phenethyl pyridineamides	FRAC: 7
N-4	Lipid synthesis, growth regulation. Inhibitors of acetyl CoA carboxylase	Tetronic and Tetramic acid derivatives	IRAC: 23
N-UN	Compounds of unknown or uncertain MoA	Various chemistries	
N-UNX	Compounds of unknown or uncertain MoA: Presumed multi-site inhibitor	Various fumigants	IRAC: 8
N-UNB	Bacterial agents (non-Bt) of unknown or uncertain MoA	Bacterium or Bacterium-Derived	
N-UNF	Fungal agents of unknown or uncertain MoA	Fungus or Fungus-Derived	
N-UNE	Botanical or animal derived agents including synthetic, extracts and unrefined oils with unknown or uncertain MoA	Botanical or Animal-Derived	

Examples of nematicide MoA label icons - see list and poster at <https://irac-online.org/>:

GROUP	<b>N-1A</b>	NEMATICIDE
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Carbamates

GROUP	<b>N-1B</b>	NEMATICIDE
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Organophosphates

GROUP	<b>N-2</b>	NEMATICIDE
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Avermectins

GROUP	<b>N-3</b>	NEMATICIDE
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Pyridinyl-ethyl-benzamides, Phenethyl pyridineamides

GROUP	<b>N-4</b>	NEMATICIDE
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Tetronic and Tetramic acid derivatives

GROUP	<b>N-UN</b>	NEMATICIDE
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Various chemistries - unknown MoA

GROUP	<b>N-UNX</b>	NEMATICIDE
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Various fumigants

GROUP	<b>N-UNB</b>	NEMATICIDE
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Bacterium or Bacterium-Derived

GROUP	<b>N-UNF</b>	NEMATICIDE
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Fungus or Fungus-Derived

GROUP	<b>N-UNE</b>	NEMATICIDE
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Botanical or Animal-Derived