

B.Sc. III Year (Theory)
Semester –VI
Paper XX (C)
Microbiology and Disease Management

Unit-2

Disease management:
2. Control methods

f. Nematicides- Nemagon, Propoxar

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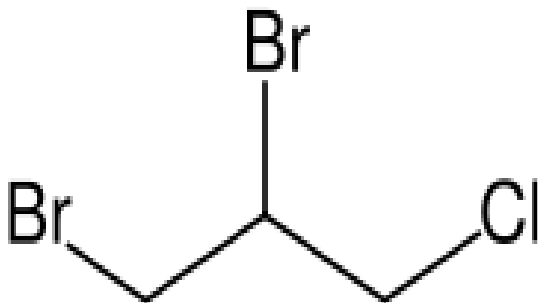
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NEMATOCIDES

Nemagon (1,2-Dibromo-3-chloropropane)

1,2-Dibromo-3-chloropropane, (dibromochloropropane) better known as DBCP, is the active ingredient in the [nematicide](#) Nemagon, also known as Fumazone. It is a soil [fumigant](#) formerly used in American [agriculture](#). In mammals it causes male sterility at high levels of exposure. After discovery of its deleterious health effects on humans, the compound was banned from use in 1979 by the [United States Environmental Protection Agency](#) (EPA). The continuing presence of the chemical as a [contaminant](#) in [ground water](#) remains a problem for many communities for years after end of use.



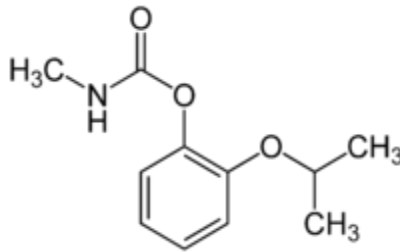
Until 1977, DBCP was used as a soil fumigant and nematocide on over 40 different crops in the United States. It fights pests that attack the roots of fruit trees and boosts the weight of harvests by 20 percent. From 1977 to 1979, EPA suspended registration for all DBCP-containing products except for use on pineapples in [Hawaii](#). In 1985, EPA issued an intent to cancel all registrations for DBCP, including use on [pineapples](#). Subsequently, the use of existing stocks of DBCP was prohibited. DBCP is used as an intermediate in the synthesis of organic chemicals.

Human exposure to DBCP could result from the ingestion of contaminated drinking water and food. Human exposure could also result from inhalation and / or skin contact with the product. In the past, release of DBCP to the environment occurred primarily from its fumigant and nematocide uses; because of the cancellation of all DBCP uses, environmental exposure is expected to decline with time.



Propoxur

- Propoxur (Baygon) is a [carbamate](#) [insecticide](#) and was introduced in 1959.
- Propoxur is a non-systemic insecticide with a fast knockdown and long residual effect used against turf, forestry, and household pests and fleas.



- It is also used in pest control for other domestic animals, [*Anopheles*](#) mosquitoes, ants, gypsy moths, and other agricultural pests. It can also be used as a molluscicide.
- Several [US states](#) have petitioned the [Environmental Protection Agency \(EPA\)](#) to use propoxur against [bedbug](#) infestations, but the EPA has been reluctant to approve indoor use because of its potential toxicity to children after chronic exposure.

- Carbamate insecticides kill insects by reversibly inactivating the [enzyme acetylcholinesterase](#).
- It rapidly breaks down in alkaline solution.
- Propoxur is highly toxic to many bird species, but its toxicity varies by the species.
- It is moderately to slightly toxic to fish and other aquatic species.
- Propoxur is highly toxic to honeybees.



FIGHTER 20

HOUSE HOLD INSECTICIDE



Range for use	Indoor and outdoor
Target insects	Houseflies, Mosquitoes, Beetles, etc.
Active ingredient	Propoxur 20% EC
Net weight	100 g
Net volume	100 ml
Shelf life	2 years

PROPOXUR 20% EC

Thank You