

HOME MADE INSECT KILLER



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INTRODUCTION



HOME MADE INSECT KILLER

An **insecticide** is a substance used to kill [insects](#).^[1] They include ovicides and [larvicides](#) used against insect [eggs](#) and [larvae](#), respectively. Insecticides are used in [agriculture](#), [medicine](#), [industry](#) and by consumers. Insecticides are claimed to be a major factor behind the increase in agricultural 20th century's productivity.^[2] Nearly all insecticides have the potential to significantly alter ecosystems; many are toxic to humans; some concentrate along the food chain.

Insecticides can be classified in two major groups as [systemic insecticide](#) which have residual or long term activity and contact insecticides, which have no residual activity.

Furthermore, one can distinguish natural insecticides, such as [nicotine](#), [pyrethrum](#) and [neem](#) extracts, made by plants as defenses against insects, inorganic insecticides, which are metals, versus organic insecticides, which are organic chemical compounds mostly working by contact.

The [mode of action](#) describes how the pesticide kills or inactivates a pest. It provides another way of classifying insecticides. Mode of action is important in understanding whether an insecticide will be toxic to unrelated species, such as fish, birds and mammals.

For products that repel rather than kill insects see [insect repellents](#). **Type of activity**

Systemic insecticides become incorporated and distributed systemically throughout the whole plant. When insects feed on the plant, they ingest the insecticide. Systemic insecticides produced by [transgenic](#) plants are called plant-incorporated protectants (PIPs). For instance, a gene that codes for a specific [Bacillus thuringiensis](#) biocidal protein was introduced into corn and other species. The plant manufactures the protein, which kills the insect when consumed.^[3] Systemic insecticides have activity pertaining to their residue which is called "residual activity" or long-term activity.

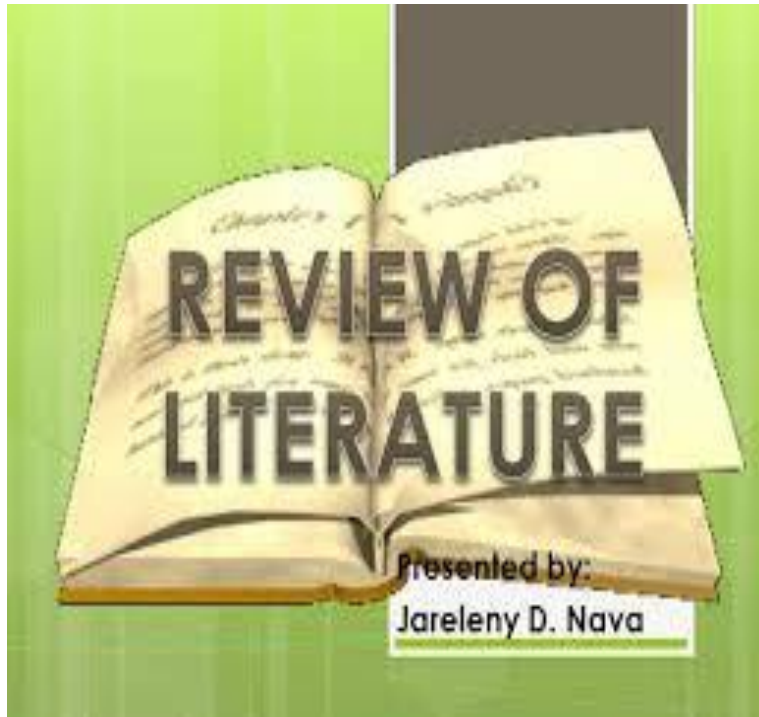
Contact insecticides are toxic to insects upon direct contact. These can be inorganic insecticides, which are metals and include [arsenates](#), [copper](#) and [fluorine](#) compounds, which are less commonly used, and the commonly used [sulfur](#). Contact insecticides can be organic insecticides, i.e. organic chemical compounds, synthetically produced, and comprising the largest numbers of pesticides used today. Or they can be natural compounds like pyrethrum, neem oil etc. Contact insecticides usually have no residual activity.

Efficacy can be related to the quality of [pesticide application](#), with small droplets, such as [aerosols](#) often improving performance

Effects on nontarget species

Some insecticides kill or harm other creatures in addition to those they are intended to kill. For example, birds may be poisoned when they eat food that was recently sprayed with insecticides or when they mistake an insecticide granule on the ground for food and eat it.^[7] Turmeric Powder

REVIEW OF LITERATURE



TURMERIC:

Turmeric is a foe of bed bugs. Rub turmeric powder over the complete mattress. Turmeric contains Curcumin. This agent is a very powerful anti-microbial agent that creates unfavorable conditions for the survival of bed bugs. This curtails the supply of oxygen within the mattresses. **The bugs get trapped and they die due to insufficient oxygen supply.** This may sound surprising, but is true. Turmeric powder is an effective home remedy to kill bed bugs.



10 amazing uses of Turmeric

1) **Anti-septic use:** Known for its anti-septic, disinfectant and anti-bacterial properties Turmeric has a long tradition of being applied directly onto cuts, bruises and burns. Additionally it is known to help speeding up the wound healing process and remodeling damaged skin.

2) **Anti-inflammatory and Anti-oxidant:** Turmeric in India has been used against colds, bronchitis and even tuberculosis.

It has been found that the anti-inflammatory properties of Turmeric also have an anti-arthritic effect. Given in form of capsules Turmeric is recommended against Osteoarthritis and Rheumatic Arthritis. Insecticide

The Anti-oxidant properties of Turmeric are known to protect the body from free radicals and thus play an important role in cancer prevention, anti-aging and prevention of inflammations.

3) **Digestive Aid:** Since long Turmeric is been used to aid digestion, improve the intestinal flora and treat an upset stomach. In Thailand Turmeric is widely used as an anti-diarrheal agent and appetite stimulant. Even Western medicine nowadays recommends the consumption of Turmeric in food or through capsules to treat digestive problems.

4) **Further medicinal uses:** The list of medicinal uses of Turmeric is long. While many finds are still in an early stage and need further medical research it is interesting to know what this wonder plant might hold in stock for you!

Cancer: Even though studies are in an early stage Turmeric has shown in laboratory tests that it can lead to death of cancer cells and over-all minimize the growth of cancer cells. It was found that Turmeric inhibits the growth of melanoma (skin cancer) and also prevents tumor cells of breast cancer to spread to the lungs. Additionally it has been suggested that Turmeric combined with cauliflower can have a positive effect against prostate cancer.

Some medical research has indicated the use of Turmeric to lower the risk of early childhood leukemia and effective use in the treatment of colon cancer. On top of that Turmeric is been said to reduce the negative side effects of chemotherapy.

Liver: Recent studies suggest that Turmeric has a protective effect on the liver and can delay the damage of the liver tissue due to for example prolonged alcohol consumption or overuse of painkillers.

Alzheimer's: Again research is in an early stage, but recent studies have found that Turmeric might prevent and slow down the disease by reducing amyloid plaque accumulation in the brain tissue.

Furthermore Turmeric might help against Multiple sclerosis and depression and is known to be a powerful natural painkiller. It has been used in the Eastern traditional medicine to treat Gonorrhoea, dizziness, peptic ulcers and even to eradicate ringworms when applied externally. Additionally Turmeric was found to enhance the immune system, protect the Central nervous System and to lower the levels of LDL cholesterol and thus protecting the cardio-vascular system against Artherosclerosis (clogging and hardening of the blood vessels

8) Pest control and insect repellent: Newer [*research*](#) has found Turmeric powder, the plant extract and its essential oils to be promising as pest controls for a variety of known agricultural insect pests and even some important fungal threats. Being non-toxic for humans Turmeric thus could pose a new option for

organic pest control and replacement of mineral oil based not-sustainable synthetic pesticides. An Israeli company recently has developed special plastic packaging for food in which a layer of turmeric oil has been laminated to prevent food being attacked by insect pests. While the research for food packaging is still under development the same sheets are already in use by now to protect sensitive crops effectively against a variety of pests.

Additionally it was found that the application of Turmeric oil brought complete protection against mosquito landing and biting for up to 9 hours!



Garlic makes an excellent economical, non-toxic pesticide for the garden. It has natural fungicidal and pesticidal properties that work effectively to control pests. For maximum efficacy in pest control, avoid using any chemical fertilizers. Fertilizers diminish the capacity of vital ingredients in garlic to fight pests. Aphids, ants, termites, white flies, beetles, borers, caterpillars, slugs and

army worms are some of the pests that can be suitably controlled using garlic.

TIP: Our expert gardening advisor, Susan Patterson adds, "Healthy soil will draw beneficial insects and work in combination with garlic to repel the bad insects. Keep your soil healthy by using plenty of organic matter, allowing adequate drainage and keeping the garden weed free."

Garlic Spray

Obtain 5 medium-sized garlic bulbs. Extract the cloves and remove the outer skin. Use a garlic press to crush to very small bits. Alternatively, crush using a mortar and pestle. Mix with 1/2-liter of water. Allow the mixture to soak for at least 6 hours. Add in some dish washing soap. It is best to use a potash-based soap, as one that is too caustic will harm the plants. Use a fine cloth to strain the mixture. Place in a glass jar with a tight fitting lid. When ready to use, dilute the mixture in 4 liters of water. It is best to use it immediately after preparation. When stored for a long time, it loses its potency.

For easy application, place the desired amount in a spray bottle. Spray the plant parts once a week to give protection against insects. If rains are present, you need to spray twice a week. Of course, garlic has an extremely strong taste. Once sprayed, the taste will remain on the plant for about a month. It is a good idea not to spray too close to harvesting time, as it may interfere with food flavors. Also, garlic is a broad-spectrum pesticide, so be careful to spray only the plant parts that are infested. This will help minimize destruction of beneficial insects.

Garlic Drench

You can effectively control nematodes using garlic tea as a soil drench. It will be absorbed by the plant roots and repel Japanese beetles, codling moths, carrot flies and root maggots. It also kills slugs and snails. It is very effective in keeping away deer and rabbits from flowers in the garden. Although effective, the drench is also likely to destroy beneficial, as well as harmful insects and soil bacteria.



Homemade chili powder sprays can protect plants against insects and other pests that may be eating the garden. Chili powder spray won't kill all insects, but the spray will repel most insects and other pests that eat garden plants. It should not be sprayed directly on fruits, vegetables or herbs meant for the table as they could end up tasting like chili powder. Limit the spray to nonedible leave
Repellant

Insects do not like plants with a strong odor or taste. The capsaicin that gives chili powder its hot flavor is distasteful to insects. Spraying plants or the soil around the plants with chili

powder spray can keep insects from taking a taste. Because chili powder can be irritating to skin, wearing gloves while working with spray is recommended. Precautions need to be taken to keep the spray from getting into the eyes or on exposed skin as well, especially during windy weather.

Chili

For a basic chili pepper spray, add 1½ teaspoons of chili powder to 1 quart of water. Add two drops of liquid dish soap to help the spray adhere to surfaces. Like human skin, some plants can be irritated or burned by chili powder sprays, so always spray one or two leaves as a test. Leave the spray on the test leaves for several days to watch for a reaction. If the sprayed leaves are wilted, yellow or look burned, do not spray the plant with chili spray. The spray can be applied to the soil around sensitive plants and still be effective against many insects and garden pests.

Garlic as an insecticide: Yes, it's true. [Garlic](#) is so powerful that it can even be used as insecticide. The uses of garlic are not just exclusive in cooking and medical field, but also made its presence known in the agricultural world. Pest control is still a big problem for crop growers as well as gardeners. A lot of commercially prepared insecticides were produced, but due to growing expenses, a more natural way of taking care of our crops was thought of. Since garlic was noticeably abundant and easy to grow, researchers took time to do studies and find out if this crop can be used as an insecticide and also to prevent harming the environment.

Garlic is said to contain antibacterial, fungicidal and repellent elements that makes it an effective insecticide. But before we prepare the solution, you must make sure that the one you're going to use was not grown using commercially and chemically prepared fertilizers, so it is best to use your own home-grown garlic. Having said that this crop contains antibacterial as well as repellent properties, it therefore can also harm other things that you don't really want to get rid of.

To increase the potency of chili powder spray, garlic can be added. Chop an entire head of garlic and add to 1 quart of hot water, let steep for 24 hours. Strain the mixture through cheesecloth to remove the garlic pulp. Add 1 teaspoon of chili powder and two drops of liquid dish soap. Garlic can repel beneficial insects like ladybugs as well as pests, so this spray should not be used near areas where beneficial insects live.

Garlic Health Benefits Articles

- Antibiotic
- Cancer Prevention
- Cough and Sore Throat
- Garlic
- Garlic and Cancer
- Garlic Blood Pressure
- Garlic Cures
- Garlic Health Benefits

- [Garlic Herbal Medicine](#)
- [Garlic Juice](#)
- [Garlic Powder](#)
- [Garlic Sauce](#)
- [Garlic Side Effects](#)
- [Garlic Supplement Benefits](#)
- [Garlic Supplements](#)
- [Garlic Tea](#)
- [Growing Garlic](#)
- [High Blood Pressure](#)
- [High Cholesterol](#)
- [Historical Uses of Garlic](#)
- [How to Store Garlic](#)
- [How to Use Garlic](#)
- [Insecticide](#)
- [Medical Disclaimer](#)
- [Privacy Policy](#)

Soap Spray Insecticide

To make this solution, you need to combine 100 grams of crushed garlic cloves with 500mL of water and 10 grams of a detergent-based soap such as a dishwashing liquid using a blender, after which it should be mixed really well. Filter the solution using a strainer or a fine cloth. Add in another 500mL of water to the same solution and mix well before using. Apply sufficient amount on top and bottom of leaves which may be repeated once a week or after a rain.

Spray Insecticide

Using a blender, add in a whole garlic bulb and two cups water and set it on high speed until the garlic is finely pureed. Place it in a clean container and store for one day. Remove the pulp using and strainer then combine the solution with one gallon of water. Put on the leaves of the plant covering completely both top and bottom areas. This can be repeated once a week or soon after a rain.

Powder Spray

Using dried garlic bulbs, crush and them grind through a blender until it is finely turned into powder. Even without water, it can be applied directly on the affected areas of the plant, but you can choose to add in some water to make it a spray. The amount of water to be added will depend also on the amount of garlic powder produced. This solution is useful against tomato blight, scab, mildew, and bean rust.

Chili Spray

Crush one onion and one garlic using a blender, then add mix in one tablespoon of powdered chili peppers. Combine these ingredients with two liters of hot water and leave the mixture to cool down. To make the solution smooth, remove what is left of the ingredients using a strainer or fine cloth, and then set it aside. Finish up with solution by adding one tablespoon of dishwashing liquid and mix well. It is useful against caterpillars in fruit trees.

The use of garlic as a pesticide has been tried and tested by many gardeners and crop growers. Although it may not be 100% as effective as the commercially prepared pesticides, it could be

of great help to by minimizing your expenses. You on the other hand, will be able to help with environment preservation. As you keep using these garlic-inspired solutions, I am sure you too will discover ways on how to improve it, thus making it more effective.

EXPERIMENTAL WORK





HYPOTHESIS:-

I based my hypothesis on a phobia that I have, fear from insects. Whenever my mom use to spray the insecticide I felt suffocated because of the chemicals used in it. So I got an idea to prepare a homemade insect killer from homemade ingredients.

MATERIALS REQUIRED:

- Turmeric powder-1/2tbs

- Red chilli powder-1/2tbs
- Garlic paste-2tbs
- Test tube-1
- Water-25ml
- Cockroach





PROCEDURE:

Take a test tube put 1/2tbs turmeric powder as it is very powerful antimicrobial agent.

Add garlic paste 1/2tbs as it controls pests.

Add red chilli powder 1/2tbs wearing gloves while working as it may get into our eyes.

Chilli powder contains high antibacterial, fungicidal and repellent elements that make it an effective insecticide.

Mix this ingredient with water stir it well. The Liquid is ready.

This liquid can be sprayed on cockroaches or any insects and it will kill immediately.

It is best to use it immediately after the preparation.

When stored for a longer time, it loses its potential.



QUESTIONING:

1Q) what are insecticides?

2Q) are chemical insecticides safe?

3Q) can we prepare a insecticide using natural products?



RESULT:

After spraying this liquid on Cockroaches they have died within few second. Hence to my surprise the result was clearly seen that we can use natural products to prepare a natural insecticide.

DATA COLLECTED:

S.NO	MATERIALS TAKEN	QUANTITY
1	TURMERIC POWDER	1TB SPOON
2	RED CHILLI POWDER	1TB SPOON
3	GARLIC PASTE	1TB SPOON
4	WATER	100ML



CONCLUSION:

Hence from the above conducted experiment my hypothesis was proven to be correct. By the above result it is clearly seen that homemade insect killer is best for killing insects.

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