

# Low Danger Pest Control Booklet for Communities



Division of Environmental Health  
School of Public Health and Family Medicine  
Isikolo Sempilo Yoluntu kunye Namayeza Osapho  
Departement Openbare Gesondheid en Huisartskunde



UNIVERSITY OF CAPE TOWN  
IYUNIVESITHI YASEKAPA - UNIVERSITEIT VAN KAAPSTAD

This is a booklet to be used by communities for controlling pests without the use of chemicals. In this booklet, we present mixtures to aid pest control in the home. The focus is on methods that are cheap and effective. By using these cheap and effective methods, we hope it can reduce the use of street pesticides bought at informal markets and taxi ranks. This is because street pesticides are illegal, highly toxic and can lead to death if used in the home. The mixtures are not for eating purposes, and should be kept out of reach of children and pets at all times to avoid accidental contact.

The **Division of Environmental Health**, headed by Professor Hanna-Andrea Rother, produced this booklet for the City of Cape Town. The Division sits within the School of Public Health and Family Medicine at the University of Cape Town (UCT), South Africa. The booklet was produced in conjunction with UCT's Street Pesticide Reference Group members and Red Cross War Memorial Children's Hospital Poisons Information Centre.

This work was funded by the Cape Higher Education Consortium, the City of Cape Town and the South African Medical Research Council (SAMRC) under a Self-Initiated Research Grant. Although the work is supported by the SAMRC, the views and opinions expressed are not those of the SAMRC.

### Acknowledgement

Members of the UCT Street Pesticide Reference Group who reviewed multiple versions and provided crucial information. Wake Forest School of Medicine (WFSM), North Carolina, USA for sharing their flip chart with a similar topic. Permission to use this material and concepts was kindly granted by WFSM.



This work is licensed under a Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License. In essence, you are free to share, copy and distribute these materials without any changes, for non-commercial reasons only and with an acknowledgement to the Division of Environmental Health at the University of Cape Town.

### Contact Information

Division of Environmental Health

Phone: +27 21 404 7661

Email: [environmentalhealth@uct.ac.za](mailto:environmentalhealth@uct.ac.za)

Website: [http://www.publichealth.uct.ac.za/phfm\\_environmental-health](http://www.publichealth.uct.ac.za/phfm_environmental-health)

**PRODUCED IN 2019**



Division of Environmental Health  
School of Public Health and Family Medicine  
Isikolo Sempilo Yoluntu kunye Namayeza Osapho  
Departement Openbare Gesondheid en Huisartskunde



CITY OF CAPE TOWN  
ISIXEKO SASEKAPA  
STAD KAAPSTAD



**CHEC**

Cape Higher Education Consortium



## Several terms are used in the booklet.

Here are some examples of what they mean or are referring to:



**Spray bottle:** this is a container used to hold liquids so that they can be sprayed on many different surfaces using a trigger and nozzle. Classic spray bottles bought in markets generally look like the picture to the left. If these are too expensive, a homemade spray bottle can be made by piercing holes into the plastic cap of a cool-drink bottle. If you do this, remember to keep it out of reach of children who may think the bottle still contains cool-drink.



**Bicarbonate of soda:** some mixtures call for the use of bicarbonate of soda. This is an ingredient often used for baking. It is also known as “baking soda”, “sodium bicarbonate” or “bicarb”. Bicarbonate of soda looks like fine, white powder.



**Vaseline:** this is a brand of petroleum jelly-based products. It can be bought at many commercial stores. There are other brands of petroleum jelly-based products that would also work; see the pictures on the left.



**Icing sugar:** this is a product that is commonly used in baking and to ice cakes. It is finer than castor or normal sugar. You can buy it in many supermarkets.



**Sellotape and duct tape:** these are both forms of sticky tape. Sellotape is clear (picture on the left) whereas duct tape (picture on the right) is usually silver or black and stickier than the clear tape.



**Eucalyptus leaves:** these are also known as “Blue Gum” leaves and can be found throughout Cape Town in many green areas. These leaves form the active ingredient in eucalyptus oil.



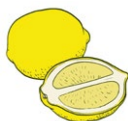
**Fine salt:** you can buy either “coarse” or “fine” salt. Fine salt crystals are smaller than coarse salt crystals and dissolve quicker in water. Fine salt is also known as “table salt” or “iodated table salt”.



**Basil leaves:** these come from the herb called basil or “great basil”. Basil is commonly used in cooking.



**Yeast:** this is a fungus that is often used in cooking, like when making vetkoek. It is often used to make dough rise and expand.



**Lemon juice:** You can get lemon juice by squeezing lemons and collecting their juice.



**Food-grade Diatomaceous Earth:** this is a fine powder made up of fossilised organisms from the sea. Use food-grade diatomaceous earth only.



**Neem oil:** this is a vegetable oil made from the tropical neem tree. It is a naturally occurring pesticide with a yellow to brown appearance and garlic/sulfur smell to it.



**Citronella oil:** this is an oil made from plants such as lemongrass. It is a natural insect repellent and has a strong lemon/citrus scent.

# Table of Contents

Ants.....3

Bed Bugs.....15

Cockroaches .....25

Fleas.....33

Flies.....43

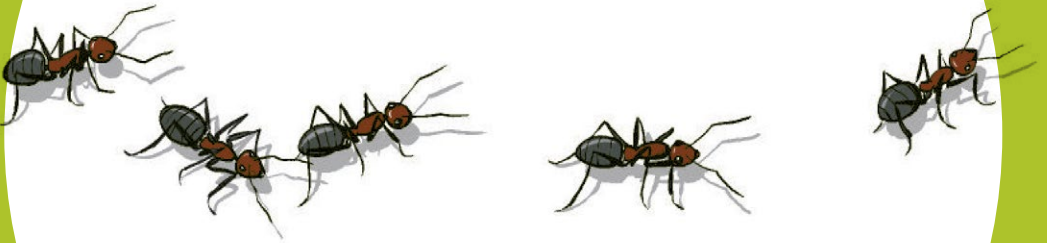
Mosquitoes.....53

Rodents .....59

Ticks.....67



# ANTS



## Ant-prevention Hygiene Tips:

**The best way to control ants is through prevention!**

**There are several ways to stop ants from becoming a problem:**

- ✓ See if it is possible to plug the places where ants are entering the house (e.g., fix holes, steel wool).
- ✓ Use lemon juice to wipe counters, inside cupboards, and potential holes that ants are entering through.
- ✓ Sprinkle window sills or floor edges (which are out of reach of children) with cinnamon, cayenne pepper or chilli powder.
- ✓ Leave mint leaves or cloves in areas where ants are often found. These will need to be replaced when you can no longer smell them.
- ✓ Take a saucer or small plate and pour some water into it. Place a sugar bowl on the saucer (in the water) so ants become trapped on the saucer when they try to get to the sugar.
- ✓ Place the legs of beds in cans of water to prevent ants from climbing onto the beds while people are sleeping.
- ✓ If you can find the ant nest outside, make a hot-chilli solution:
  - o Put 2-4 sliced hot chillies into a one-litre jar and fill it with hot water;
  - o Soak for 24 hours;
  - o Remove the chillies and pour the mixture into the ant nest.



# Ant Control: Vinegar Mixture



House Black Ant



Garden Ant



Sugar Ant

## ANT FACTS

Ants feed together, so many can be targeted at once. They also leave a “scent trail” so be sure to clean this trail away with the ants.

## INGREDIENTS

1 cup Vinegar (any type)  
1 cup Water  
Chilli powder (peppermint  
or cinnamon)

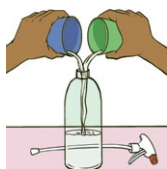
## EQUIPMENT

Cup (any type)  
Spray bottle  
Damp paper towel

## PURPOSE

This vinegar mixture is for killing ants and removing their scent trail.

You can make your own mixture to control ants by following these steps:



## STEP 1

Mix one (1) cup of water with one (1) cup of vinegar. Chilli powder, peppermint or cinnamon can also be added to the mixture for extra strength.



## STEP 2

Spray the mixture directly on the ants.



## STEP 3

Wipe up the dead ants using a damp paper towel. Throw the dead ants and the cloth into a rubbish bin with a lid.



## STEP 4

Also spray the mixture on counters and windows to remove the ant ‘scent trail’.

# Ant Control: Bicarb Bait



House Black Ant



Garden Ant



Sugar Ant

## ANT FACTS

If you smoke, always wear plastic gloves when making ant bait or the ants will sense the tobacco smoke on the bait and not go to it. Ants do not like cigarette or cigar smoke.

## INGREDIENTS

10 teaspoons Jam  
or Syrup

1 teaspoon  
Bicarbonate of soda

## EQUIPMENT

Teaspoon  
Damp paper towel  
Plastic lid

## PURPOSE

This bait is for killing  
ants. **Place out of reach  
of children and pets.**



You can make your own mixture to control ants by following these steps:

## STEP 1

Mix ten (10) teaspoons of jam or syrup with one (1) teaspoon of bicarbonate of soda. Mix well.



## STEP 2

Place a few spoonfuls of the mixture onto a plastic lid and place the lid near where you see ants. Replace the bait often as ants prefer fresh bait.



## STEP 3

Wipe up the dead ants using a damp paper towel. Throw the dead ants and the cloth into a rubbish bin with a lid.

# Ant Control: Diatomaceous Earth (Dry Method)



House Black Ant



Garden Ant



Sugar Ant

## ANT FACTS

Ants feed together so many can be targeted at once. They also leave a “scent trail” so be sure to clean this away when trying to get rid of them.

## INGREDIENTS

Food-grade diatomaceous earth powder

## EQUIPMENT

Bottle or container (lid with holes or container)

## PURPOSE

Diatomaceous earth powder is used for killing ants. **Place out of reach of children and pets.**

If ants are seen along edges, cracks, and on the floor, use the dry method and the following steps to kill them:

## STEP 1

Identify areas in and around the house and garden where you have seen ants crawling. Identify areas where you think ants may be able to enter the house. Avoid placing the diatomaceous earth in areas where children or pets will come into contact with it.



## STEP 2

Put some diatomaceous earth powder in an empty bottle or container and make holes in the lid with a nail. Spread the powder along edges of the floor, behind baseboards, and any areas that are hard to reach. In the garden, place it under or on plants, or where you see ant activity. Carefully, put some powder in the corners of windows and doors.



Dust very lightly so the ants still go through the powder which has sharp pieces that will cut them. Put a label on the bottle that says “Diatomaceous Earth: DO NOT INHALE”.



### STEP 3

Watch the areas where you have put the powder in order to identify other routes taken by the ants. After a month, clean the area with a disposable cloth, put the cloth in the bin and re-apply the powder.

**CAUTION:** Diatomaceous earth poses a hazard to honeybees. When using this method in the garden, apply to plants late in the evening when bee activity is less and avoid any plants in flower.

**CAUTION:** When using the diatomaceous earth powder, always wear a mask or use clothing (e.g., scarf) to cover your nose and mouth. Do not breathe in or ingest the diatomaceous earth powder. Never apply when children are present.

# Ant Control: Diatomaceous Earth (Wet method)



House Black Ant



Garden Ant



Sugar Ant

## ANT FACTS

Ants feed together so many can be targeted at once. They also leave a “scent trail” so be sure to clean this away when trying to get rid of them.

## INGREDIENTS

Food-grade  
diatomaceous earth  
powder  
Water

## EQUIPMENT

Tablespoon  
Spray bottle

## PURPOSE

Diatomaceous earth powder is used for killing ants. **Place out of reach of children and pets.**

You can kill ants by following these steps:

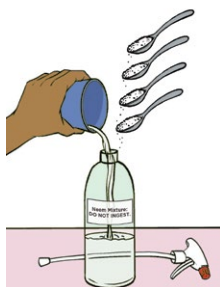
### STEP 1

Identify areas in and around the house and garden where you have seen ants crawling. Identify areas where you think ants may be able to enter the house. Avoid placing the diatomaceous earth in areas where children or pets will come into contact with it.



### STEP 2

If the ants have been found across a large, flat area, or have been moving up walls, use this wet method.



### STEP 3

Put 4-6 tablespoons of diatomaceous earth powder into a spray bottle. Fill the remainder of the bottle with water and mix. Put a label on the bottle that says “Diatomaceous Earth: DO NOT DRINK”.



#### STEP 4

Spray once or twice on dry surfaces. Allow for the water to evaporate. You should see a thin layer on the surfaces you have sprayed. Watch the areas you have sprayed to identify alternate routes taken by the ants. After a month, clean off the treated area and re-apply.

**CAUTION:** Diatomaceous earth poses a hazard to honeybees. When using this method in the garden, apply to plants late in the evening when bee activity is less and avoid any plants in flower.

**CAUTION:** When using the diatomaceous earth powder, always wear a mask or use clothing (e.g., scarf) to cover your nose and mouth. Do not breathe in or ingest the diatomaceous earth powder. Never apply when children are present.

# Ant Control: Neem and Water Mixture



House Black Ant



Garden Ant



Sugar Ant

## ANT FACTS

Ants feed together so many can be targeted at once. They also leave a “scent trail” so be sure to clean this away when trying to get rid of them.

## INGREDIENTS

1 ½ teaspoons of  
Neem oil  
1 litre of Water  
1 teaspoon of Liquid  
(dish) soap

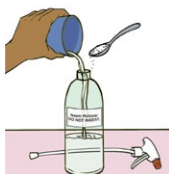
## EQUIPMENT

Teaspoon  
Spray bottle  
Damp paper towel

## PURPOSE

This neem mixture is used for killing ants. **Place out of reach of children and pets.**

You can kill ants by following these steps:



## STEP 1

In a litre spray bottle, mix one and a half (1 ½) teaspoons of neem oil and one (1) teaspoon of liquid soap with one (1) litre of water. Label the spray bottle with “Neem Mixture: DO NOT INGEST”.

**KEEP OUT OF REACH OF CHILDREN.**



## STEP 2

Spray the solution anywhere where there are ants.



## STEP 3

Wipe up the dead ants using a damp paper towel and throw them away in a rubbish bin with a lid.

**CAUTION:** Neem oil can cause irritation to the skin and eyes. Neem oil should not be ingested and should be kept out of reach of children and pets. Do not use neem oil when pregnant.

# Ant Bait/Traps: Diatomaceous Earth



House Black Ant



Garden Ant



Sugar Ant

## ANT FACTS

If you smoke, always wear plastic gloves when making ant bait or the ants will sense the tobacco smoke on the bait and not go to it. Ants do not like cigarette or cigar smoke.

## INGREDIENTS

2 teaspoons  
Food-grade  
Diatomaceous  
Earth  
3 cups Water  
1 cup Sugar

## EQUIPMENT

6 Jars with lids  
Masking tape  
Cotton balls/Sponge/  
Paper towels  
Cup (any type)

## PURPOSE

This bait will catch ants.

You can make your own bait to control ants by following these steps:



### Step 1

Mix one (1) cup of sugar, three (3) cups of water and two (2) teaspoons food-grade diatomaceous earth in a container.



### Step 2

Wrap the tape around the jars so the ants can climb up. Make several holes in the lids. Half-fill the jars with cotton balls, pieces of sponge or balls made from paper towels or toilet paper.



### Step 3

Pour the sugary mixture over the balls/sponge/paper until they are soaked (about  $\frac{1}{2}$  cup depending on jar size). Screw the lids tightly on the jars.





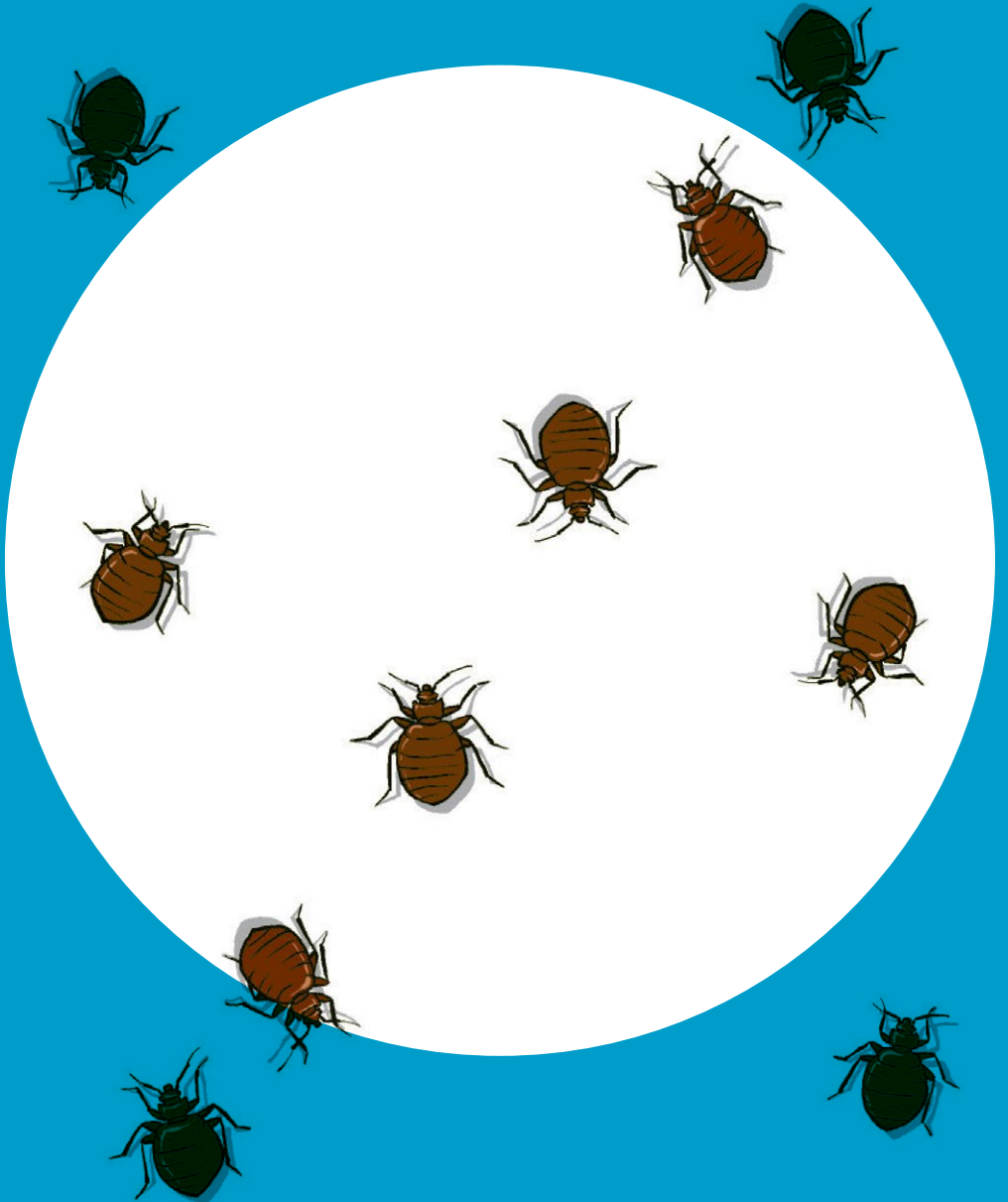
### Step 4

Place the jars where there are ants. Make sure children and animals can not reach the traps.

**CAUTION:** When using the diatomaceous earth powder, always wear a mask or use clothing (e.g., scarf) to cover your nose and mouth. Do not breathe in or ingest the diatomaceous earth powder. Never apply when children are present.



# BED BUGS



## Bed Bug-prevention Hygiene Tips:

Be aware that bed bugs travel easily from one place to another on you and your things! They will hide in suitcases, handbags, jackets, boxes or shoes, and come out at night to bite.

- ✓ Avoid picking up and using second-hand mattresses.
- ✓ If you do want to bring a second-hand mattress home, wrap it in black plastic and leave it in the hot sun all day before bringing into the house. This will kill the bed bugs.
- ✓ Cover your mattress with a zipped mattress cover that has no folds around the zipper where bed bugs can hide.
- ✓ Try to avoid using second-hand furniture with upholstery (cloth).
- ✓ If you want to bring home second-hand furniture:
  - o Place the furniture in the hot sun for three hours or more before taking it into the house. Put each piece of furniture in a dark plastic bag, if they fit, to reach high temperatures.
  - o Rub the furniture with lavender or eucalyptus oil.
- ✓ If you travel away from home, always check the bed you sleep in for bed bugs.
- ✓ If you brought luggage back and you may have stayed in a place with bed bugs, place your luggage in the sun wrapped in a black bag all day. Vacuum or clean out the luggage thoroughly outside the house.
- ✓ If someone comes home with a bed bug bite, check their clothes as bed bugs like to ride on these. Wash the clothes in hot water immediately.
- ✓ Put your clothes in sealed plastic bags when staying in hotels or at the homes of others.
- ✓ Clean up clutter. Remove clutter from walls where bed bugs hide.
- ✓ Check any second-hand items for bed bugs before you bring them home – even electronics, such as TVs, computers, lamps, washing machines.

# Bed Bug Control: Mattress



Common Male and Female Bed Bugs

## BED BUG FACTS

Bed bugs can live without food or water for a whole year.

Bed bugs like to travel and are good hitchhikers.

## EQUIPMENT

Bicarbonate of soda

Sunny outside area

Large plastic bag

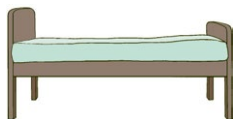
## PURPOSE

To prevent bed bug infestation.

You can control bed bugs by following these steps:

### STEP 1

Find where the bed bugs are living; usually found on mattresses.



### STEP 2

Wrap the mattress with bed bugs in plastic. Dark plastic is best. Completely seal the bag. [If you do not have plastic at home, you can sprinkle the mattress with bicarbonate of soda before you get the plastic.]



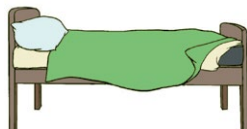
### STEP 3

Place the mattress wrapped in plastic in the sun for 3-8 hours - the longer the better.



### STEP 4

To prevent bed bugs getting onto your mattress again, leave the plastic on the mattress for one year. This is because that is how long bed bugs can survive with no food or water.



# Bed Bug Control: Prevention



Common Male and Female Bed Bugs

## BED BUG FACTS

Bed bugs can live without food or water for a whole year.

### INGREDIENTS

Soap  
Water  
Vaseline  
Hot water

### EQUIPMENT

4 cans (bigger than  
the bed legs)

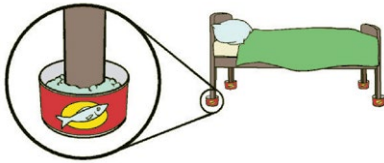
### PURPOSE

To prevent bed bug infestation. There are three different ways you can stop bed bugs from getting into your bed.

You can prevent bed bugs by following these steps:

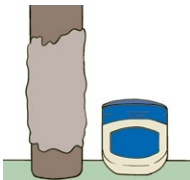
### FIRST WAY

**SOAPY WATER:** Find four small cans. Mix some soap and water. Half-fill the four (4) cans with the mixture. Place the legs of your bed into each can.



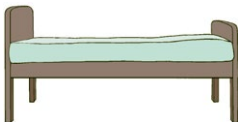
### SECOND WAY

**VASELINE:** Smear Vaseline onto the bed legs. Re-apply when there is no longer a thick layer.



### THIRD WAY

**BED POSITION AND HYGIENE:** Keep your bed away from the wall to prevent bed bugs climbing up. Regularly wash bedding in hot water.



# Bed Bug Control: Yeast and Sugar Trap



Common Male and Female Bed Bugs

## BED BUG FACTS

Bed bugs can live without food or water for a whole year.

### INGREDIENTS

1 cup of Sugar  
1 litre of Water  
½ teaspoon  
Yeast

### EQUIPMENT

2-litre bottle  
Roll of paper towel  
Tape  
Scissors

### PURPOSE

Bed bugs are attracted to carbon dioxide, a product of mixing yeast with sugar. This is used to trap and kill bed bugs.

You can make this trap and bait for bed bugs by following these steps:

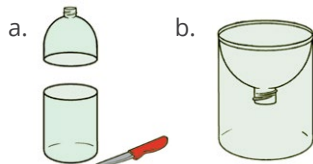


### STEP 1

Mix one (1) cup of sugar to one (1) litre of warm water. After the sugar and warm water is mixed, add in ½ teaspoon of yeast. The mixture will begin to froth.

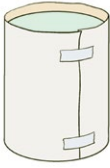
### STEP 2

Take the 2-litre bottle and cut the top off along the top edge of the label (picture a). Then remove the cap from the top of the bottle. Turn the top upside down and place the open end of the bottle inside the bottom half of the bottle (picture b).



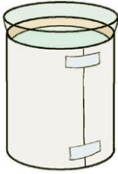
### STEP 3

Tape paper towel to the bottle as this will give the bed bugs something to climb. Make sure the paper towel is taped evenly at the bottom of the bottle and cut the excess off the top. It is recommended to leave some of the paper towel hanging over.



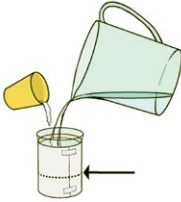
### STEP 4

Fold the top of the paper towel over and into the bottle.



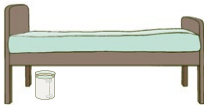
### STEP 5

Pour about a quarter ( $1/4$ ) cup of sugar into the bottom of the bottle through the upside-down top. Then take the yeast and sugar mixture from STEP 1 and pour about 8cm of the mixture on top of the sugar.



### STEP 6

Place the bottle close to your bed where it will not be knocked over.





# Bed Bug Control: Neem and Water Repellent



Common Male and Female Bed Bugs

## BED BUG FACTS

Bed bugs can live without food or water for a whole year.

### INGREDIENTS

1 teaspoon of  
Neem oil  
1 cup of water

### EQUIPMENT

Spray bottle  
Damp paper cloth  
Plastic bag

### PURPOSE

Neem repellent will help to keep  
bed bugs away.



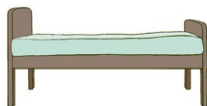
You can prevent bed bugs by following these steps:

### STEP 1

Place one (1) teaspoon of neem oil in a spray bottle with one (1) cup of water. Label the spray bottle with Neem Mixture: DO NOT INGEST.

### STEP 2

Spray the solution onto mattresses and anywhere where there are bed bugs, especially in the spaces where the walls meet the floor. Let the mattress dry fully before using it.



### STEP 3

Wipe away any dead bed bugs using a damp paper cloth and throw the bugs and cloth away in a rubbish bin with a lid.

**CAUTION:** Neem oil can cause irritation to the skin and eyes. Neem oil should not be ingested and should be kept out of reach of children and pets. Do not use neem oil when pregnant.

# Bed Bug Control: Diatomaceous Earth Powder



Common Male and Female Bed Bugs

## BED BUG FACTS

Bed bugs can live without food or water for a whole year.

### INGREDIENTS

Food-grade  
Diatomaceous  
earth powder

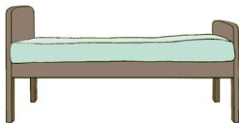
### EQUIPMENT

Bottle  
Damp cloth

### PURPOSE

Diatomaceous Earth Powder is used to keep bed bugs away. **Place out of reach of children and pets.**

You can keep bed bugs away by following these steps:



### STEP 1

Identify areas where there are bed bugs, avoiding areas where children or pets will come into contact with the diatomaceous earth powder.



### STEP 2

Put some diatomaceous earth powder in an empty bottle and put holes in the lid. Label the bottle with Diatomaceous Earth: DO NOT INHALE. Spread the powder along mouldy areas, in drawers, in any cracks or crevices, behind appliances, along windowsills, and along skirting boards.





### STEP 3

Place a thin layer of diatomaceous earth powder on furniture, carpets and mattresses.

### STEP 4

After 2-3 weeks, wipe the areas with a damp cloth and sweep up any leftover or old powder. Re-use the powder if needed.

**CAUTION:** When using the diatomaceous earth powder, always wear a mask or use clothing (e.g., scarf) to cover your nose and mouth. Do not breathe in or ingest the diatomaceous earth powder. Never apply when children are present.



# COCKROACHES



## Cockroach-prevention Hygiene Tips:

**It is much easier to prevent infestation by cockroaches than it is to get rid of them once they are in your home!**

- ✓ Keep counters clean – wipe with soap and water to remove crumbs – especially before going to sleep.
- ✓ Keep the inside of cupboards clean. Wipe with soap and water to remove crumbs.
- ✓ Cockroaches do not like peppermint. Mix peppermint leaves or oil with white vinegar, and then use regularly to wipe counters and cupboards clean.
- ✓ Cockroaches can hide under a toaster or kettle. Clean all kitchen appliances regularly.
- ✓ Try to have only one eating area in the house.
- ✓ Clean the kitchen floor every night before going to bed – sweep to remove crumbs.

# Cockroach Control: Sugar and Bicarb Mixture



German Cockroach



Oriental Cockroach



American Cockroach

## COCKROACH FACTS:

Cockroaches like dark and crowded spaces. Some cockroaches are attracted to sweet food, others like meat fat/ drippings. Keep checking the traps you make to see what they like.

### INGREDIENTS

2 teaspoons of Icing sugar  
2 teaspoons  
Bicarbonate of soda

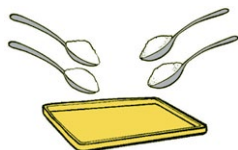
### EQUIPMENT

Teaspoon  
Plastic lid  
Plastic bag

### PURPOSE

This mixture is for killing cockroaches. Keep the mixture out of reach of children and pets.

You can make your own mixture to control cockroaches by following these steps:



### STEP 1

Mix two (2) teaspoons of icing sugar with two (2) teaspoons of bicarbonate of soda on a flat plastic lid.



### STEP 2

Place the plastic lid with the mixture behind appliances, cupboards or anywhere cockroaches live. Make sure children and animals cannot reach or eat it.



### STEP 3

Leave until mixture is hard and then replace. Put the hard mixture, dead cockroaches, and plastic lid into a plastic bag and throw it away in a rubbish bin with a lid.

# Cockroach Control: Peanut Butter Trap



German Cockroach



Oriental Cockroach



American Cockroach

## COCKROACH FACTS:

Cockroaches like dark and crowded spaces. Some cockroaches are attracted to sweet food, others like meat fat/ drippings. Keep checking the traps you make to see what they like.

### INGREDIENTS

Peanut butter

### EQUIPMENT

Sellotape or  
sticky tape  
Matchbox  
Plastic bag

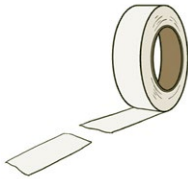
### PURPOSE

This mixture is for killing cockroaches. Keep the mixture out of reach of children and pets.

You can make this trap to control cockroaches by following these steps:

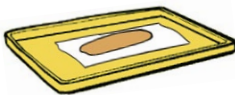
### STEP 1

Cut small strips of Sellotape or any other very sticky tape.



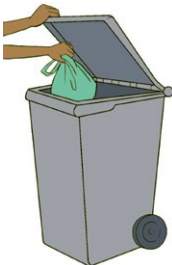
### STEP 2

Place the tape, with one teaspoon of peanut butter on the sticky side, onto a plastic lid. Place anywhere cockroaches have been seen. Replace when the tape is full of cockroaches.



### STEP 3

Put the the tape with the dead cockroaches into a plastic bag and throw it away in a rubbish bin with a lid.





# Cockroach Control: Diatomaceous Earth Powder



German Cockroach



Oriental Cockroach



American Cockroach

## COCKROACH FACTS:

Cockroaches like dark, crowded spaces, so control efforts should include wall spaces, spaces in cabinets and drawer spaces, and under sinks.

### INGREDIENTS

Food-grade  
Diatomaceous  
earth powder

### EQUIPMENT

Bottle (with lid)  
Broom

### PURPOSE

Diatomaceous earth powder is used to kill cockroaches. **Place out of reach of children and pets.**

You can kill cockroaches by following these steps:



### STEP 1

Clean the whole house fully before using the diatomaceous earth powder and ensure the floors, wall spaces, and storage areas are dry.



### STEP 2

Put some diatomaceous earth powder in an empty bottle and make holes in the lid with a nail. Spread it lightly on the surfaces, avoiding areas where children or pets will come into contact with it. Cockroaches will not walk through a thick layer of diatomaceous earth, so make sure to put a thin dusting. If you store the powder in the bottle label it "Diatomaceous Earth: DO NOT INHALE".



### STEP 3

Leave the powder until the cockroach problem is gone. More powder can be applied if need be.



#### STEP 4

Sweep up the dead cockroaches and old Diatomaceous Earth powder and throw it all away in a rubbish bin with a lid.



**CAUTION:** When using the diatomaceous earth powder, always wear a mask or use clothing (e.g., scarf) to cover your nose and mouth. Do not breathe in or ingest the diatomaceous earth powder. Never apply the powder when children are present.

# Cockroach Control: Neem and Water Mixture



German Cockroach



Oriental Cockroach



American Cockroach

## COCKROACH FACTS:

Cockroaches like dark, crowded spaces, so control efforts should include wall spaces, spaces in cabinets and drawer spaces and under sinks.

### INGREDIENTS

1 teaspoon of  
Neem oil  
1 cup of Water

### EQUIPMENT

Teaspoon  
Spray bottle  
Damp paper  
towel

### PURPOSE

This mixture is used to keep cockroaches away. **Place out of reach of children and pets.**



You can kill cockroaches by following these steps:

### STEP 1

Mix one (1) teaspoon of neem oil with one (1) cup of water in a spray bottle.

### STEP 2

Label spray bottle with Neem Mixture: DO NOT INGEST and keep out of reach of children.



### STEP 3

Spray the solution anywhere there are cockroaches.



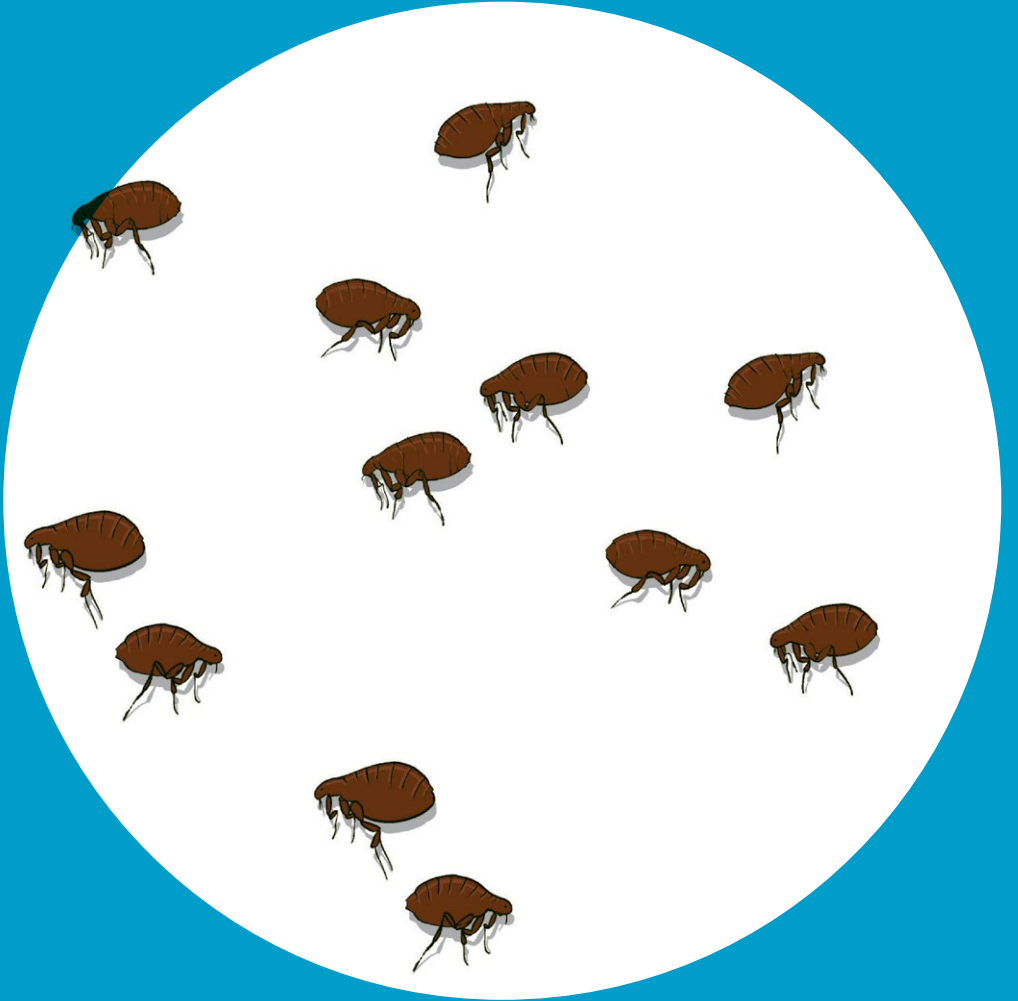
### STEP 4

Wipe up the dead cockroaches using a damp paper towel and throw it away in a rubbish bin with a lid.

**CAUTION:** Neem oil can cause irritation to the skin and eyes. Neem oil should not be ingested and should be kept out of reach of children and pets. Do not use neem oil when pregnant.



# FLEAS



## Flea-prevention Hygiene Tips:

Fleas cannot fly but they can jump from food source (e.g., human, animal) to food source (e.g., human, animal).

- ✓ If you vacuum, clean the bag after each use.
- ✓ Sweep or mop floors often.
- ✓ Brush pets daily outside to remove flea eggs.
- ✓ Shake rugs outside and/or vacuum them often.
- ✓ Wash the bedding that the pets sleep on at least once a week.
- ✓ Prevent strange dogs and cats from coming into the house or yard.

# Flea Control: Eucalyptus Repellent



Cat Flea



Dog Flea



Bird Flea

## FLEA FACTS

Female fleas can lay 30-50 eggs per day on pets or humans and many of the eggs may fall off and end up on the carpet, rug, furniture or pet bedding.

## INGREDIENTS

20 x Eucalyptus leaves  
1L Water

## EQUIPMENT

Pot  
Stove to boil water  
Spray bottle or  
sponge

## PURPOSE

This eucalyptus mixture helps keep fleas away.

You can make your own mixture to control fleas by following these steps:



## STEP 1

Place twenty (20) fresh eucalyptus leaves in a pot with one (1) litre of water. Boil the leaves in the water for 10 minutes and let it cool down.



## STEP 2

Remove the leaves from the water and put the mixture in a spray bottle or in a wide-open container with a sponge.



## STEP 3

Sponge or spray the cool mixture onto pets and places where they sleep. The cool mixture can also be applied with a sponge.

# Flea Control: Lemon Repellent



Cat Flea



Dog Flea



Bird Flea

## FLEA FACTS

Female fleas can lay 30-50 eggs per day on pets or humans and many of the eggs may fall off and end up on the carpet, rug, furniture or pet bedding.

## INGREDIENTS

2 x Lemons  
1L Water

## EQUIPMENT

Pot  
Stove to boil water  
Spray bottle or  
sponge

## PURPOSE

This lemon mixture will help keep fleas away.



You can make your own repellent to control fleas by following these steps:

## STEP 1

Peel two (2) large lemons.



## STEP 2

Place the lemon peels in a pot with one (1) litre of water. Boil the water and peels for 10 minutes and let it cool down.



## STEP 3

Remove the peels from the water and place in a spray bottle or a wide-open container with a sponge.



## STEP 4

Sponge or spray the cool water onto pets and the places where they sleep.



# Flea Control: Salt Repellent



Cat Flea



Dog Flea



Bird Flea

## FLEA FACTS

Female fleas can lay 30-50 eggs per day on pets or humans and many of the eggs may fall off and end up on the carpet, rug, furniture or pet bedding.

## INGREDIENTS

Fine salt  
Water

## EQUIPMENT

Brush and dustpan

## PURPOSE

This salt mixture will help keep fleas away.

You can make your own repellent to control fleas by following these steps:



## STEP 1

Place a thick layer of salt where fleas are found in the home such as under tables, on the couch cushions, carpets, rugs or outside.



## STEP 2

Leave the salt overnight, or at least for eight (8) hours.



## STEP 3

Sweep up the salt and throw it away in the rubbish bin.



### FOR PETS:

Make a mixture of one-part salt to 10 parts water and put in a container to wash your pet in. [For large animals, pour over them.] Soak the pet in the salty water but do not let any salt water get into their eyes or ears. Rinse the pet off with clean, warm water, and then cool water.



### FOR PETS WITH LOTS OF FLEAS:

Gently rub dry salt into the pet's fur and leave it for two (2) hours. Brush pet well to remove all the salt and then rinse their fur well with warm water. If the fleas come back again, repeat the salt rub and rinsing in 10 days time.

# Flea Control: Diatomaceous Earth Powder



Cat Flea



Dog Flea



Bird Flea

## FLEA FACTS

Female fleas can lay 30-50 eggs per day on pets or humans and many of the eggs can fall off and end up on the carpet, rug, furniture or pet bedding.

## INGREDIENTS

Food-grade diatomaceous earth powder

## EQUIPMENT

Bottle (with lid)  
Damp cloth  
Brush

## PURPOSE

Diatomaceous earth powder is used to keep fleas away.  
**Place out of reach of children and pets.**

You can control fleas by following these steps:



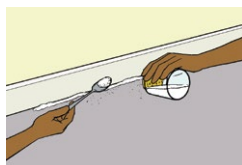
## STEP 1

Clean the whole house fully before using the diatomaceous earth powder.



## STEP 2

Put some diatomaceous earth powder in an empty bottle and make holes in the lid with a nail. Label the bottle with "Diatomaceous Earth: DO NOT INHALE". Spread the powder onto fabrics, carpets, linen, blankets, and furniture. If you have pets, spread the powder in areas where the pets spend time such as their bed, kennel, pillow or rug.



## STEP 3

After 4-5 days, wash all the fabric materials on which the powder was spread. Wipe the treated furniture with a damp cloth. If you have pets, dust off all areas where the pets spend time such as their beds, kennels, pillows or rugs. Bath the pets and brush them.





#### STEP 4

Apply the powder again until the fleas are gone.  
The powder helps keep fleas away.

**CAUTION:** Diatomaceous earth poses a hazard to honeybees. When using this method in the garden, apply to plants late in the evening when bee activity is less and avoid any plants in flower.

**CAUTION:** When using the diatomaceous earth powder, always wear a mask or use clothing (e.g., scarf) to cover your nose and mouth. Do not breathe in or ingest the diatomaceous earth powder. Never apply when children are present.

# Flea Control: Neem and Water Mixture



Cat Flea



Dog Flea



Bird Flea

## FLEA FACTS

Female fleas can lay 30-50 eggs per day on pets or humans and many of the eggs can fall off and end up on the carpet, rug, furniture or pet bedding.

## INGREDIENTS

- 1 teaspoon Neem oil
- 1 cup of Water

## EQUIPMENT

- Teaspoon
- Spray bottle
- Damp paper towel

## PURPOSE

This mixture is used to keep fleas away. **Place out of reach of children and pets.**

You can make your own mixture to control fleas by following these steps:

### STEP 1

Place one (1) teaspoon of neem oil and one (1) cup of water in a labelled spray bottle with Neem Mixture: **DO NOT INGEST.**



### STEP 2

Keep out of reach of children.



### STEP 3

Spray the solution anywhere where there are fleas.



### STEP 4

Wipe up the dead fleas using a damp paper towel and throw it all away in a rubbish bin with a lid.

**CAUTION:** Neem oil can cause irritation to the skin and eyes. Neem oil should not be ingested and should be kept out of reach of children and pets. Do not use neem oil when pregnant.



# FLIES



## Fly-prevention Hygiene Tips:

### To prevent flies:

- ✓ Always keep food covered. Keep food in a container with a lid or put a cloth over the bowl/ plate.
- ✓ Sweep often to remove food crumbs from the floor.
- ✓ Make sure your rubbish bin has a lid.
- ✓ Clean the inside of your rubbish bin once a week with vinegar or other cleaning products.
- ✓ Keep your inside and outside drains clean.



# Fly Control: Tape Trap



House Fly



Cluster Fly

## FLY FACTS:

Flies feed on foodstuff and waste, where they can pick up and spread diseases such as diarrhoea and eye infections.

## EQUIPMENT

Fly tape bought at a shop  
Plastic bag

## PURPOSE

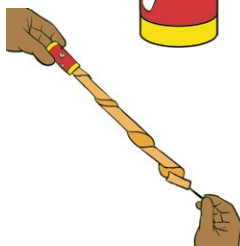
This fly tape/ paper helps catch flies.

You can make your own traps to control flies by following these steps:



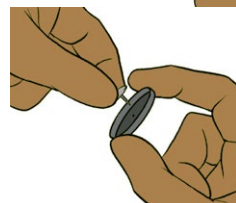
## STEP 1

Open the package and take the tape out.



## STEP 2

Grasp the cord and pull slowly turning the tube in a counter-clockwise (twirling) motion. The cap will pop out.



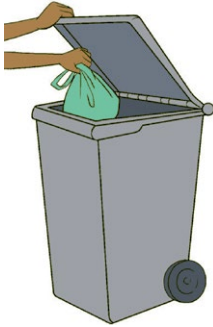
## STEP 3

Remove the thumbtack (pin) from the top of cap and use it to hang up the tape trap. Throw the cap away.



#### STEP 4

Remove the tape completely from the tube or let the tube dangle from the tape. Hang the tape with the thumbtack (pin) or cord in a high place in the home to attract flies.



#### STEP 5

When the tape is full of flies, remove it and place in a plastic bag. Throw away the plastic bag in a rubbish bin with a lid. Be careful because the tape is sticky. Wash your hands well after handling the tape.

# Fly Control: Vinegar Mixture



House Fly



Cluster Fly

## FLY FACTS:

Flies feed on foodstuff and waste, where they can pick up and spread diseases such as diarrhoea and eye infections.

## INGREDIENTS

1 cup of Vinegar  
(any type)  
1 cup of Water

## EQUIPMENT

Cup  
Spray bottle  
Damp paper towel  
Plastic bag

## PURPOSE

This vinegar-water mixture helps keep flies away.

It works best if used alongside other repellents such as citrus peels (skins of citrus fruits hanging on doors and windows), essential oils, or planting citronella, malvarosa, marigold, mint or lemongrass around the house.

You can make your own mixture to control flies by following these steps:

## STEP 1

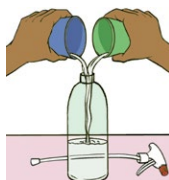
Mix one (1) cup of vinegar with one (1) cup of water and place in a spray bottle.

## STEP 2

Shake the bottle well before use. Spray the mixture around windowsills and other surfaces where you see flies resting.

## STEP 3

Wipe up the dead flies using a damp paper towel, place the flies and cloth in a plastic bag and put it in a rubbish bin with a lid.



# Fly Control: Bottle Trap



House Fly



Cluster Fly

## FLY FACTS:

Flies feed on foodstuff and waste, where they can pick up and spread diseases such as diarrhoea, and eye infections.

## INGREDIENTS

Left-over food like rotting potatoes or meat

## EQUIPMENT

Empty 2L plastic bottle  
Knife  
Duct tape  
String  
Plastic bag

## PURPOSE

This trap will help catch flies which will starve and die.



You can make your own trap to control flies by following these steps:

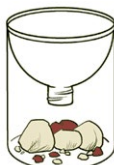
## STEP 1

Cut an empty, plastic, 2L drink-bottle in two, with a knife. Make the bottom half larger than the top half.



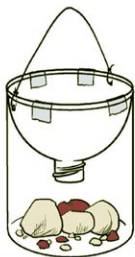
## STEP 2

Place a few pieces of rotting food - such as potatoes or old meat - in the bottom half of the bottle.



## STEP 3

Remove the cap from the top of the bottle. Turn the top upside down and place the open end of the bottle inside the bottom half of the bottle.



#### STEP 4

Tape the two halves of the bottle together so they stay secure. Make two holes on either side of the bottle and hang the trap outside with a piece of string.



#### STEP 5

When the trap is full or smells too bad, put the trap in a plastic bag and throw it away in a bin with a lid.

**CAUTION:** This trap could attract more flies. You should only use this trap when you have a lot of flies. If you only have a few flies, it could end up attracting flies from other places.

# Fly Maggot Control: Basil Repellent



Maggot (fly larva)

## FLY FACTS:

Flies feed on foodstuff and waste where they can pick up and spread diseases such as diarrhoea and eye infections.

### INGREDIENTS

20-40 Basil leaves  
Water

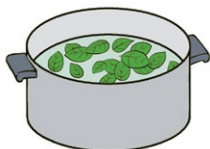
### EQUIPMENT

Spray bottle  
Damp paper towel  
Plastic bag

### PURPOSE

This basil mixture will help keep fly maggots away.

You can make your own repellent to control maggots by following these steps:



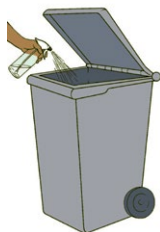
### STEP 1

Soak 20-40 basil leaves in hot water for 24 hours.



### STEP 2

Take out the leaves, and pour the mixture into a spray bottle.



### STEP 3

Spray the solution on the maggots and inside dustbins. Wipe up the dead maggots using a damp paper towel, put them in a plastic bag and place the bag in a rubbish bin with a lid.

# Fly Control: Neem and Water Repellent



House Fly



Cluster Fly

## FLY FACTS:

Flies feed on foodstuffs and waste where they can pick up and spread diseases such as diarrhoea and eye infections.

### INGREDIENTS

1 teaspoon Neem oil  
1 teaspoon Water

### EQUIPMENT

Spray bottle

### PURPOSE

This mixture is used to keep flies away. **Place out of reach of children and pets.**



### STEP 1

Mix one (1) teaspoon of neem oil with one (1) teaspoon of water



### STEP 2

Place the solution into a spray bottle and label the bottle with "Neem Mixture: DO NOT INGEST"



### STEP 3

Spray the solution on furniture, floors, and anywhere where there are flies.

### STEP 4

Wipe up the dead flies with a damp cloth and throw them away in a rubbish bin with a lid.

**CAUTION:** Neem oil can cause irritation to the skin and eyes. Neem oil should not be ingested and should be kept out of reach of children and pets. Do not use neem oil when pregnant.





# MOSQUITOES



## Mosquito-prevention Hygiene Tips

### To prevent mosquitoes:

- ✓ Get rid of all standing water regularly. Remove or turn over containers and buckets, toys, pet dishes, etc.
- ✓ Do regular checks to see if there is any standing water and remove it.
- ✓ Change pets' drinking water daily.
- ✓ Rake up fallen leaves. An overturned leaf can hold enough water for mosquito eggs.
- ✓ Check rain gutter and clean regularly.
- ✓ Fill any holes in your garden and yard which may hold water.
- ✓ Keep mosquito repellent plants in your garden, yard or in pots in your house. These include lemon thyme, plants with citrus-scent (e.g., lemon grass, citronella plant), lavender, mint, marigold and rosemary. Rub these plants regularly to release their scent.

# Mosquito Control: Yeast Trap



Anopheles Mosquito



Aedes Mosquito



Culex Mosquito

## MOSQUITO FACTS

Mosquitoes are attracted to standing water around the house as this is where they like to breed. They can breed in as little as 3 cm of standing water.

### INGREDIENTS

½ cup Brown sugar  
½ cup Boiling water  
1 teaspoon Dry Yeast

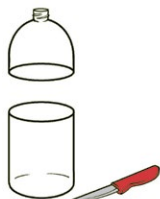
### EQUIPMENT

Plastic 1L or 2L bottle  
Duct tape  
Scissors

### PURPOSE

This trap helps to kill mosquitoes.

You can make your own trap to control mosquitoes by following these steps:



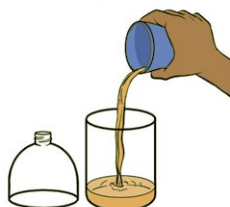
### STEP 1

Cut a plastic one (1) or two (2) litre bottle in half, a little more than halfway from the bottom.



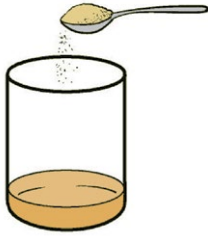
### STEP 2

Dissolve ½ (half) cup of brown sugar in ½ (half) cup of boiling water, to create a syrup mixture. Let the syrup cool.



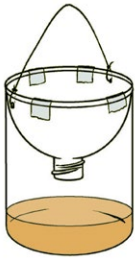
### STEP 3

Pour the cooled syrup into the bottom of the plastic bottle.



#### STEP 4

Sprinkle one (1) teaspoon of dry yeast on the top of the syrup so that the yeast floats on top. **DO NOT STIR.**



#### STEP 5

Remove the cap from the top of the bottle. Turn the top upside down and place the open end of the bottle inside the bottom half of the bottle. Hold the two pieces together with tape. Ensure the top of the bottle is above the water and not in it. Make two holes in the bottle and hang up trap outside with a string.



#### STEP 6

Hang the trap where mosquitoes have been a problem. Empty and refill the syrup mixture every two weeks or when bubbles are no longer forming. Hang up and **place out of reach of children and pets.**

# Mosquito Control: Neem and Water Repellent



Anopheles Mosquito



Aedes Mosquito



Culex Mosquito

## MOSQUITO FACTS

Mosquitoes are attracted to still-standing water lying around the house as this is where they breed.

### INGREDIENTS

1 teaspoon Neem oil  
1 teaspoon Water

### EQUIPMENT

Spray bottle

### PURPOSE

This mixture is used to keep mosquitoes away. **Place out of reach of children and pets.**

You can make your own mosquito repellent by following these steps:



### STEP 1

Mix one (1) teaspoon of neem oil with one (1) teaspoon of water.



### STEP 2

Place the solution into a spray bottle and label the bottle with "Neem Mixture: DO NOT INGEST".



### STEP 3

Spray the solution on furniture, floors, and anywhere where there are mosquitoes.

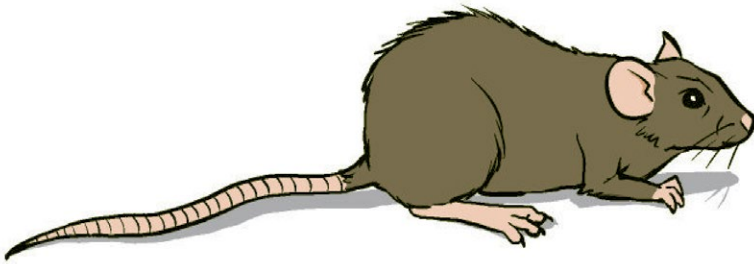
### STEP 4

Wipe up the dead mosquitoes with a damp cloth and throw them away in a rubbish bin with a lid.

**CAUTION:** Neem oil can cause irritation to the skin and eyes. Neem oil should not be ingested and should be kept out of reach of children and pets. Do not use neem oil when pregnant.



# RODENTS



## Rodent-prevention Hygiene Tips:

To keep rats and mice (and other pests) from coming into your home:

✓ **Starve them out!**

- o store food in containers that close well and do not let air in;
- o clean up spills and crumbs immediately;
- o cover rubbish bins with tight-fitting lids; and
- o take the rubbish out of the house every day.

✓ **Dry them out!**

- o fix any leaky taps, pipes or roofs;
- o clean up liquid spills or any water on the floor;
- o do not leave water out for pets overnight; and
- o cover any buckets of water with lids.

✓ **Keep them out!**

- o put netting on windows;
- o put screens or netting over the front door;
- o cover vents with netting; and
- o seal any cracks or holes in the walls, floors or under the doors. Steel wool can be useful for plugging holes especially those that rats and mice use.



# Rodent Control: Trap



Brown Rat (Norway Rat)



Black Rat



House Mouse

## RODENT FACTS:

Rats are excellent climbers. Remove thick plants/ bushes around the house and also ensure cracks and openings near the roof are sealed.

## INGREDIENTS

Peanut butter, vetkoek or piece of meat

## EQUIPMENT

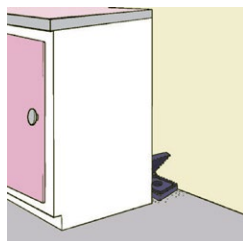
Rat trap  
Soap  
Water



## PURPOSE

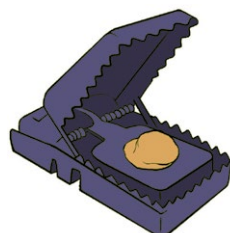
This trap helps to kill rats and mice. It needs to be a fast spring-snap trap. DO NOT use the common wood traps; they are not strong enough.

You can use these traps to control rodents by following these steps:



## STEP 1

PLACE THE TRAP near where you see rat droppings. Find the route rodents use to get into your home. Make sure the trap is out of reach of people, children, or animals that could get hurt by it. For example, put the trap behind cupboards.



## STEP 2

ADD BAIT such as peanut butter, vetkoek or old meat when setting up the trap. If possible, ATTACH IT firmly to the ground or a solid place to keep the rat from dragging the trap away. If possible, leave the trap unset in the same place for three days with food in it. Rodents are shy about new things in their territory and will only approach the trap when they are used to it. Only after three days, set the trap.



### STEP 3

PUT DEAD RODENT in a plastic bag in a rubbish bin with a lid.



### STEP 4

WASH THE TRAP with soap after catching a mouse or rat and throw out the washing water. The trap must be washed before it is used again. If the rodent smells a dead rodent on the trap, it will not approach the trap. Washing the trap removes the smell of the dead rodent.

# Rodent Control: Bicarb Mixture



Brown Rat (Norway Rat)



Black Rat



House Mouse

## RODENT FACTS:

Rats are excellent climbers. Remove thick plants/ bushes around the house and also ensure cracks and openings near the roof are sealed.

## INGREDIENTS

½ cup Flour/ mielie meal

½ cup Sugar

½ cup Bicarbonate of soda

## EQUIPMENT

Cup

Jar lids

Mixing stick

Plastic bag

## PURPOSE

This mixture is to help kill rats and mice. The sugar will attract the rats and the bicarbonate of soda will kill them.

You can make your own mixture to control rodents by following these steps:



## STEP 1

Mix ½ (half) a cup of flour or mealie meal with half a cup of sugar and half a cup of bicarbonate of soda. The sugar will attract the rodents and the bicarbonate of soda will kill them soon after they have eaten it.



## STEP 2

Half fill some jars or plastic lids with the mixture.



### STEP 3

Place the lids with the mixture wherever you have seen droppings or behind cupboards. The rodents often return to these spots. Make sure children and animals cannot reach or eat the mixture.



### STEP 4

Collect the dead rodents, put them in plastic bags and place the bags in a rubbish bin with a lid.

# Rodent Control: Diatomaceous Earth Powder



Brown Rat (Norway Rat)



Black Rat



House Mouse

## RODENT FACTS:

Rats are excellent climbers. Remove dense vegetation along the house and also ensure cracks and openings near the roof are sealed.

## INGREDIENTS

1 cup of Food-grade diatomaceous earth powder  
1/8 cup of Water  
3-5 drops of Lemon juice

## EQUIPMENT

Cup  
Plastic container  
Stick  
Spoon

## PURPOSE

Diatomaceous earth powder helps to kill rodents.

**Place out of reach of children and pets.**

You can make your own mixture to kill rats by following these steps:

### STEP 1

Add 3-5 drops of lemon juice to a little bit of water (1/8 cup) and stir properly.



### STEP 2

Slowly add the water mixture to 1 cup of diatomaceous earth in the plastic container. Stir well with a stick or spoon until all the powder is moist.



### STEP 3

Place the container in an area where you have seen rats live and eat (this can be inside and outside of the house), avoiding areas where children or pets will come into contact with it. Label the container with "Diatomaceous Earth Powder: DO NOT EAT". If the lemon smell fades, add a little water to the mixture and stir.



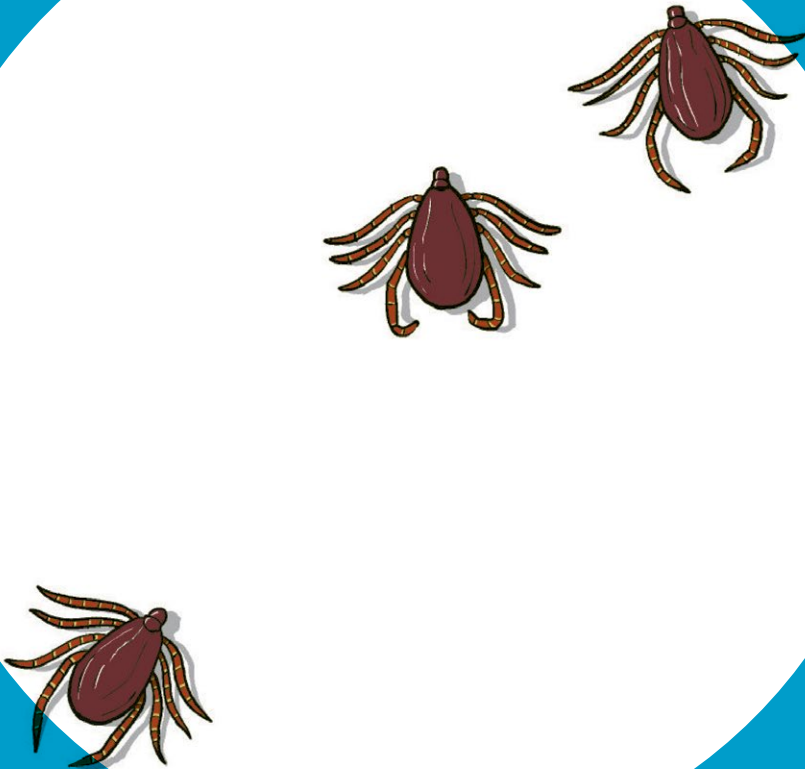


#### STEP 4

Store any of the unused mixture in a container with an airtight lid to keep the lemon smell. Label the container with "FOR RATS: DO NOT EAT".

**CAUTION:** When using the diatomaceous earth powder, always wear a mask or use clothing (e.g., scarf) to cover your nose and mouth. Do not breathe in or ingest the diatomaceous earth powder. Never apply when children are present.

# TICKS



## Tick-prevention Hygiene Tips:

To keep ticks from coming into your home:

- ✓ Repellent for pets: Ticks hate the smell and taste of vinegar. Add one cup of water to a spray bottle, followed by two cups of vinegar to make a repellent.
- ✓ Check yourself, your children, and your pets daily for ticks and carefully remove any ticks.



# Tick Control: Eucalyptus Repellent



Hairy Bont-Legged  
Tick



Smooth Bont-Legged  
Tick



Spinose Ear  
Tick

## TICK FACTS

Pets are the main source of ticks in the home. Ticks appear as small dark spots on the pet's fur, and are more commonly found on dogs than cats.

## INGREDIENTS

20 x Eucalyptus leaves  
1L Water

## EQUIPMENT

Pot  
Stove to boil water  
Spray bottle or  
sponge

## PURPOSE

This eucalyptus mixture helps keep ticks away.

You can make your own repellent to control ticks by following these steps:



## STEP 1

Boil about twenty (20) leaves of fresh eucalyptus in one (1) litre of water for 10 minutes.

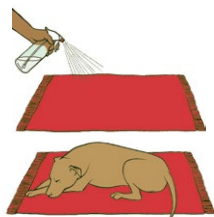


## STEP 2

Let the water cool down before taking out the leaves.

## STEP 3

Pour the cooled mixture into a spray bottle. Spray as needed on pets, especially their feet.



## STEP 4

Spray the carpets and any area where pets sleep.

# Tick Control: Diatomaceous Earth Powder Repellent



Hairy Bont-Legged Tick



Smooth Bont-Legged Tick



Spinose Ear Tick

## TICK FACTS

Pets are the main source of ticks in the home and appear as small dark spots on the pet's fur. Ticks are more commonly found on dogs than cats.

## INGREDIENTS

Food-grade  
Diatomaceous earth  
powder

## EQUIPMENT

Bottle (make holes  
in lid)  
Damp cloth  
Brush

## PURPOSE

Diatomaceous earth powder helps to keep ticks away. **Place out of reach of children and pets.**

You can make your own tick repellent by following these steps:



## STEP 1

Clean the whole house fully before using the diatomaceous earth powder. Do not use a vacuum cleaner as the diatomaceous earth powder will block it.



## STEP 2

Put some diatomaceous earth powder in an empty bottle and label with "Diatomaceous Earth: DO NOT INHALE". Put on the lid with holes in it. Spread the powder onto fabrics, carpets, linen, blankets, and furniture. If you have pets, spread the powder in areas where the pets spend time such as their beds, kennels, pillows or rugs.



### STEP 3

After 4-5 days, wash all the fabric materials on which the powder was spread. Wipe the treated furniture with a damp cloth. If you have pets, dust off all areas where the pets spend time such as their beds, kennels, pillows or rugs. Bath the pets and brush them.



### STEP 4

Repeat the process until all the ticks are gone. The powder will keep the ticks away.

**CAUTION:** When using the diatomaceous earth powder, always wear a mask or use clothing (e.g., scarf) to cover your nose and mouth. Do not breathe in or ingest the diatomaceous earth powder. Never apply when children are present.

# Tick Control: Neem and Water Repellent



Hairy Bont-Legged Tick



Smooth Bont-Legged Tick



Spinose Ear Tick

## TICK FACTS

Pets are the main source of ticks in the home and appear as small dark spots on the pet's fur. Ticks are more commonly found on dogs than cats.

## INGREDIENTS

- 1 teaspoon of Neem oil
- 1 teaspoon of Water

## EQUIPMENT

- Teaspoon
- Spray bottle
- Damp paper towel

## PURPOSE

This mixture helps to keep ticks away but does not kill them.

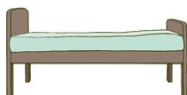
**Place out of reach of children and pets.**

You can make your own mixture to control ticks by following these steps:



## STEP 1

Mix one (1) teaspoon of neem oil with one (1) teaspoon of water in a spray bottle. Label the spray bottle with "Neem Mixture: DO NOT DRINK" and keep out of reach of children.



## STEP 2

Spray the solution onto mattresses and anywhere there are ticks.



## STEP 3

Wipe up the dead ticks using a damp paper towel and throw them away in a rubbish bin with a lid.

**CAUTION:** Neem oil can cause irritation to the skin and eyes. Neem oil should not be ingested and should be kept out of reach of children and pets. Do not use neem oil when pregnant.

# Tick Control: Citronella Oil Repellent



Hairy Bont-Legged  
Tick



Smooth Bont-Legged  
Tick



Spinose Ear  
Tick

## TICK FACTS

Pets are the main source of ticks in the home. Ticks appear as small dark spots on the pet's fur, and are more commonly found on dogs than cats.

## INGREDIENTS

1 teaspoon of  
Citronella oil  
10 teaspoons of Water

## EQUIPMENT

Teaspoon  
Spray bottle  
Damp paper towel

## PURPOSE

This mixture helps  
to keep ticks away.  
**Place out of reach of  
children and pets.**



You can make your own tick repellent by following these steps:

## STEP 1

Mix one (1) teaspoon of citronella oil with ten (10) teaspoons of water in a spray bottle. Label the spray bottle with "Citronella Mixture: DO NOT DRINK" and shake well to mix. Keep out of reach of children.



## STEP 2

Spray the solution near doorways, windows or other indoor and outdoor locations where you may be concerned about a tick infestation.



### STEP 3

Wipe up the dead ticks using a damp paper towel and throw them away in a rubbish bin with a lid.

**CAUTION:** Citronella oil is toxic to children. Ingestion may cause irritation of mucous membranes with nausea, vomiting and possible aspiration difficulties/ problems. Citronella oil should be kept out of reach of children.



