

Windcrest Farm is pleased to offer Perma-Guard Diatomaceous Earth (Fossil Shell Flour), an OMRI listed, Codex Food Chemical Grade Diatomaceous Earth and approved for organic production.

WHAT IS DIATOMACEOUS EARTH (DE)?

Diatomaceous Earth (DE) is the remains of microscopic one-celled plants (phytoplankton) called diatoms. Diatoms lived in ancient oceans and lakes that once covered parts of the western United States as well as other parts of the world. The remains of the diatoms - Diatomaceous Earth - are mined from the those dried oceans and lakes.

DE has an insecticidal quality due to the razor sharp edges of the diatom remains. When Diatomaceous Earth comes in contact with the insects, the sharp edges lacerate the bugs waxy exoskeleton and then the powdery Diatomaceous Earth absorbs the body fluids causing death from dehydration. Food grade Diatomaceous Earth works in a mechanical manner, not chemical, therefore DE has no chemical toxicity and pests cannot develop a tolerance or immunity to DE.

It is important to only use food grade Diatomaceous Earth in your garden, with your pets and your livestock. Pool filter grade Diatomaceous Earth has been heat and chemically treated and can be poisonous. Some DE garden products sold for insect control contain ingredients that would be harmful if fed to pets and livestock.

INTERNAL PARASITE CONTROL: Food grade Diatomaceous Earth makes a very effective natural insecticide and has used for over the last two decades as a natural wormer for livestock. To be most effective, food grade DE must be fed long enough to effect all newly hatching eggs. A minimum of 60 to 90 days is suggested. Food grade DE works in a mechanical manner, not chemical, therefore DE has no chemical toxicity and parasites cannot build up a tolerance or immunity.

Daily recommended food grade Diatomaceous Earth feeding rates:

Kittens - 1/2 teaspoon
Cats - 1 teaspoon
Puppies - 1/2 to 1 teaspoon
Dogs under 35 lbs. - 1 teaspoon
Dogs over 35 lbs. - 1 tablespoon
Dogs over 100 lbs. - 2 tablespoons
Cattle, Dairy Cows, & Hogs - 2% of dry feed ration
Chickens - 5% in feed
Goats, Sheep, Alpacas, & Llamas - 2% in feed
Horses - 1/2 to 1 cup in daily ration
Zoo animals - 2% in daily feed

EXTERNAL APPLICATIONS FOR DOGS & CATS: **Lightly** rub food grade Diatomaceous Earth into pets coat, fur, and bedding to dehydrate fleas, lice, mites, and ticks. Dust them lightly, but thoroughly. Pests must come in contact with the DE to be effected. Note, external applications can take up to 72 hours to dehydrate external parasites.

EXTERNAL APPLICATIONS FOR LIVESTOCK, BARN, COOPS, KENNELS, & LITTER BOXES:

In the barn: Sprinkle Diatomaceous Earth on wet spots to help dry them out and keep flies from laying eggs.

In poultry and other fowl coops: Sprinkle on the ground, in nesting/dusting boxes to prevent lice and mites. Sprinkle directly on fowl feathers to eliminate mites and lice.

Food grade Diatomaceous Earth applied to manure piles keeps fly loads down/eliminated.

Apply to moist barn, kennel and coop areas and manure and compost piles to reduce odors, dry the area, and prevent pest breeding.

Litter Boxes: Deodorizing and absorption are natural functions of diatomaceous earth, so add to kitty litter to absorb odors and keep the litter box drier.

Livestock Water Tanks: A small amount of food grade DE applied to livestock water keeps algae from growing on hot summer days. The amount of DE needed depends on the size of the water container and climate temperature. Start by experimenting with a small amount of DE increase as needed.

Compost Piles: To prevent breeding pests and control odors, apply DE to the top of the compost or vermicompost pile. DE will not harm earthworms provided you apply lightly. The earthworms will slowly work the DE into the soil.

YARD, GARDEN, & LANDSCAPE APPLICATIONS:

Ants: Apply DE to ant hills. Small ants, regardless of color, may require a few applications to completely eliminate them. Large ants can be eliminated within two applications of DE applied to the ant hill. Ants in trash cans can be controlled by either painting DE around the bottom of the trash can or sprinkling it dry around it. Regular application of DE is required to eliminate Fire Ants.

Fruit Trees: Mix food grade Diatomaceous Earth with water to paint fruit tree trunks like a white wash. Add 1 cup of DE to ½ gallon of water and stir frequently to prevent DE from settling to the bottom.

Plant Pests: For control of aphids, white fly, beetles, loopers, mites, snails, slugs, leaf hoppers, and others, use Diatomaceous Earth inside your home, greenhouse or outdoors on fruits, vegetables, flowers, grains and grass, up to and including day of harvest.

For dry application of Diatomaceous Earth use a duster and cover entire plant and apply to both the top and bottom of leaves. For young plants, as little as two pounds per acre may be adequate. For larger plants, five lbs. per acre is probably sufficient.

DE applies to the leaves best when dew is present or after a light rain. Reapply Diatomaceous Earth after a rain. Because DE kills through a mechanical action, not a chemical action, insects cannot build up resistance to DE.

Pests that lay eggs may require a second application to catch the hatching eggs.

Around the House: Sprinkle a 2 inch wide border around the foundation of your house and buildings to prevent insects from entering.

Mineralization: Food grade DE contains 15 trace minerals: calcium, magnesium, sodium, potassium, copper, zinc iron, phosphorous, selenium, which are minerals our pets, livestock, and soil need.

Fly Control: Used daily, DE helps control fly populations. Sprinkle DE on livestock when flies are present. Dust barns, coops, after mucking and throw on top of manure, compost, and vermicompost piles. Feed it daily to pets, fowl, and livestock (see above for rates). DE will pass through the animals and prevent flies from growing in the manures.

Hang burlap bags full of Diatomaceous Earth for the cattle to rub against and keep themselves dusted as a fly and pest control.

Grain Storage & Protection: Food grade Diatomaceous Earth is a healthy non-toxic alternative to chemical contamination of stored grain. When the grain is to be used, food grade Diatomaceous Earth can be easily removed, but need not be. Since it is food grade, makes no difference in taste or cooking quality, and adds 15 trace minerals.

Suggested grain and seed storage use:

1 cup of DE per 50 lbs.

5 cups of DE per 300 lbs.

7 lbs. of DE per 1500 lbs.

CAUTIONS:

NEVER use pool filter grade or any Diatomaceous Earth other than those labeled "food grade". Pool filter and some DE sold as insecticides contains additives that are harmful to you and your animals.

Because DE acts as a drying agent, avoid contact with eyes and lungs.

Do NOT use heavily on carpets to avoid vacuum problems.

Use wisely around pollinating and beneficial insects.

Food grade Diatomaceous Earth is EPA approved to be mixed with grains to control mealworms and other pests and has been exempted from tolerance requirements as an inert, inactive ingredient in chemical pesticides.

Diatomaceous Earth is EPA approved against indoor and outdoor crawling insects.

Diatomaceous Earth is USDA approved as an anti-caking agent for animal feed.

Diatomaceous Earth is FDA approved for internal and external use and has a rating of Food Chemical Codex Grade.

Diatomaceous Earth has an unlimited shelf life provided you keep it dry.