

# Termites “Bite” into Pocketbook

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Subterranean termites cost Nebraska homeowners more than \$1 million each year in treatment costs. Most of the infestations are found in the southeastern part of Nebraska and a high percentage of termite treatments are concentrated in the urban areas of Lincoln and Omaha.



Subterranean termite worker

Termites are soft-bodied, ground-dwelling social insects that live in colonies. In Nebraska, termites live below the frost level where temperature and moisture are optimal. Unlike most other insects, termites can feed on wood because they have protozoans in their gut that digest cellulose, the basic component of wood. From their nests in the soil, they reach wood or cellulose materials above the ground by making mud tubes. Termites travel inside the tubes between their nest and their food (i.e., the wood inside a house).

The traditional termite treatment strategy is to establish a continuous insecticide barrier between the nest

in the soil and the wood in the home. To properly treat a house, insecticides must be applied in the soil around the foundation. In addition, insecticides must be injected into the soil, into hollow block walls and under basement and garage floor slabs. Because proper treatment includes the use of specialized equipment and large quantities of diluted insecticide, it is not recommended that an untrained homeowner attempt a termite treatment.

Termite infestations often cause much consternation, because treatment is expensive. It is also confusing when homeowners get treatment bids from pest control companies that may differ by \$1,000 or more. Home-owners ask “Why does it cost so much”? The rest of this fact sheet will attempt to answer this question.

To look at differences between chemical costs, we will examine five different registered chemicals commonly used in termite treatments. To estimate the cost of the insecticide, we will be using the correct, recommended rate (volume) of each chemical, the labelled dilution (i.e., how much water is mixed with each container of insecticide) and the depth

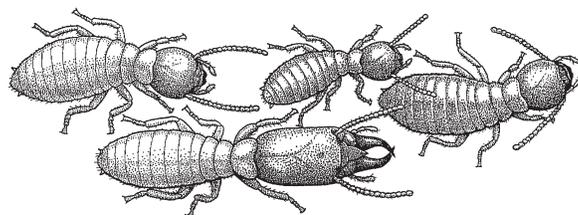
of placement based on proper application techniques used for termite treatments. Although a similar exercise can be done for pre-construction treatment, our example will use a preexisting home with a basement, four feet into grade and an attached two-stall garage built on a concrete slab (see chart on page 2).

The cost of a termite treatment obviously includes the expense of the insecticide used, labor equipment and other costs. We will estimate the cost of insecticides, by first calculating the total amount of diluted insecticide that should be used in this treatment.

From this exercise, we can see that the unit price of the different insecticides vary, but because the dilution factors are different, the total insecticide cost is in the same order of magnitude.

So what is the approximate labor costs in our hypothetical example? For this job, we estimate the time requirement for two applicators to be 10–12 hours. This hour requirement is based on the time it takes to drill holes, the quantity of liquid that must be injected, sealing of the holes and any other “finishing” work that must be

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**Know how. Know now.**

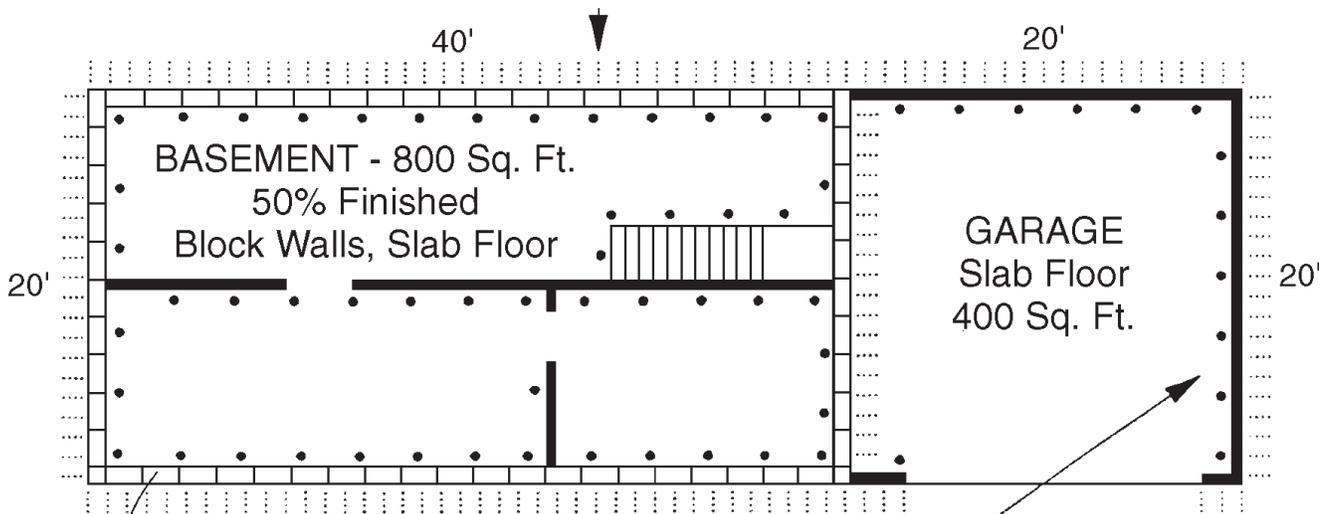
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 done. The total bid price also should include cost and upkeep of the equipment used, safety equipment, overhead and profit for the pest control company. In addition, reputable pest control companies carry liability and other insurance policies that are a significant expense. We believe that for most companies, the costs associated with labor, equipment, overhead and insurance will be greater than the cost of the insecticide for a typical job. We have calculated a realistic estimate for this job to be \$1,300–\$1,700.

Why are there sometimes large variations in the bids for termite treatments? We have seen that the chemical cost should be relatively similar for each pest control company. Equipment costs should also be fairly similar. Variations can reflect differences in hourly rates paid to workers, insurance rates, higher or lower costs of overhead. What happens if the bid you get is lower than the cost of the chemical that should be used? A very low bid suggests that a company may not be applying the labeled insecticide rate (i.e., volume) for proper treatment,

or that the chemical may be diluted with too much water. Both of these situations can reduce the effectiveness of the treatment. Another possibility is the company is taking “short cuts” to save time, which also may reduce treatment efficacy.

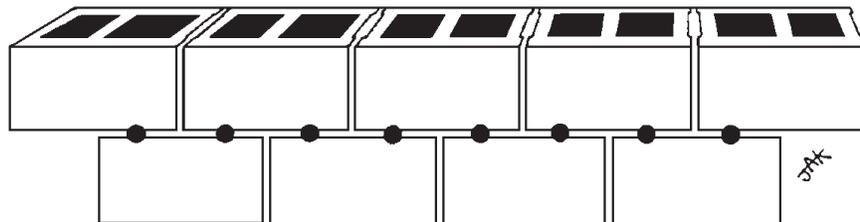
Conversely, very high bids do not insure a “better” termite treatment. Differences in home structures (for example, the depth of basements below grade), will result in different insecticide amounts and labor requirements for each termite job.

**Perimeter injection from grade to top of footing (4 feet deep) at 1-foot intervals, using a long, hollow rod.**



**Slab injection with chemical flow just under slab at 2-3 foot intervals.**

**All block basement walls injected at 8-inch intervals, one injection per void.**



**HOUSE**

**Perimeter:** 120 linear ft of rodding to 4 ft depth .....192 gal.  
Rate=16 gal. diluted material/10 linear ft

**Block treatment:** 120 linear ft.....24 gal.  
Rate=2 gallons/10 lin. ft

**Basement slab:** 180 linear ft.....72 gal.  
Rate=4 gal/10 lin. ft

**GARAGE**

**Slab:** 50 linear ft (do not include door space) .....20 gal.  
Rate=4 gal/10 linear ft

**Perimeter:** 50 linear ft. (do not include door space), 1 ft deep .....20 gal.  
Rate=4 gal./10 linear ft

**Total insecticide used** **328 gal.**

Using this volume of diluted insecticide (328 gallons), we will calculate the gallonage of undiluted products needed and their cost. The insecticide prices are current as of 4/15/03 for non-discounted chemicals.

**bifenthrin** (for example, Talstar®)

Lowest labeled dilution: 0.06% = 3 quarts/99.25 gallons water = 100 gallons diluted termiticide

Cost of 100 gallons diluted liquid = \$120/3 quarts

At 0.06% concentration, dealer cost for 100 gallons: \$120

Total dealer cost at the 0.06% dilution: 3.28 x \$120 = **\$393.60**

Increase the concentration to 0.12% and the cost of the termiticide will be \$787.20

**chlorfenapyr** (for example Phantom®)

Lowest labeled dilution: 0.125% = 75 oz/99 gallons water = 100 gallons diluted termiticide

Cost of 100 gallons diluted liquid (@0.125%) = \$145/75 oz

Total dealer cost at 0.125% dilution = 3.28 x 145 = **\$475.60**

Increase the concentration to 0.25% and the cost of the termiticide will be \$951.20

**fipronil** (for example Termidor®)

Lowest labeled dilution: 0.06% = 78 oz/99.25 gallons water = 100 gallons diluted termiticide

Cost of 100 gallons diluted liquid = \$155/78 oz

Total dealer cost at 0.06% dilution = 3.28 x 155 = **\$508.40**

Increase the concentration to 0.1% and the cost of the termiticide will be \$1016.8

**imidacloprid** (for example, Premise® 75)

Lowest labeled dilution: (0.05%) = four 2.25 packets will give 100 gallons diluted termiticide

Cost of 100 gallons diluted liquid (0.05%) = \$123.16

Total dealer cost at 0.05% = 3.28 x \$123.16 = **403.96**

Increase the concentration to 0.1% and the cost of the termiticide will be \$807.92

**permethrin** (for example Dragnet FT; generic products are Permethrin TC, Permethrin PRO)

Lowest label dilution: (0.5%) = 1.25 gallons/96 gallons water = 100 gallons

Cost of permethrin products vary because there are generic products available:

Dragnet FT = \$117/1.25 gallon jug;

Permethrin TC or Permethrin PRO = \$90.00/1.25 gallon jug

For Dragnet FT, dealer cost for 100 gallons finished liquid (0.5%): \$117

Total cost at 0.5% dilution: 3.28 x \$117 = **\$383.76**

Increasing the concentration to 1.0%, will cost \$767.52

Generic permethrin products will cost approximately **\$295** (0.5%) or \$590 (1%)

# Selecting a Termite Treatment Company

It is obvious that the cost estimate is one important factor when selecting a pest control company to treat your home. But, other factors should be taken into consideration. The following guidelines may be useful in selecting a pest control company.

1. Do not rush, termites work very slowly. Spending two to three weeks gathering information is time well spent.
2. Arrange to have 4–5 professional pest companies inspect the structure and estimate the cost of the termite treatment. Request that all bids be put in writing.
3. Ask each company to describe, in detail, the precise procedures that will be taken to treat the structure. Include:
  - a. Where will the chemical be applied?
  - b. How and where will holes be drilled to incorporate the chemical?
  - c. What special techniques will be used in areas where floor covering is present?
  - d. How will inaccessible areas and/or voids be treated?
  - e. How will the injection points (holes) be sealed?
4. Find out what chemical(s) will be used and the rationale behind its (their) use. Ask for a copy of the chemical label(s). If you have questions or concerns, talk to a physician or call the National Pesticide Telecommunications Network (1-800-858-7376).
5. What application methods will be practiced to insure a safe treatment for your family?
6. Ask what rate and amount of chemical solution will be used. Current research has determined a slow rate of application (< 25 psi) is best.
7. Request to be furnished with a list of recent references in your area. Then, call the references and ask them to comment on their termite treatment.
8. Find out what type of insurance the company has. Examples of insurance are liability and complete operations policies.
9. Ask about any warranty that will follow after treatment.