

Starting November 1, 2014 Oklahoma Department of Agriculture, Food, and Forestry (ODAFF) pesticide inspectors will resume as part of their daily work routine termiticide pre-treat sampling. After this date ODAFF pesticide inspectors will be looking for areas of new construction. Inspectors will be in contact with builders and concrete contractors to locate areas of construction to be sampled. Sites to be sampled will be identified during routine work activities & sampled according to the soil sampling protocols listed. It will be our goal to sample most, if not all applicators as opportunities present themselves. ODAFF's pre-treatment soil sampling protocol is listed below as well as posted on our web page. <http://ag.ok.gov/cps.htm>

#### **4. Soil Residue Samples**

- a.) The decision to obtain a soil residue sample will many times depend on the situation and the length of time since the application or misapplication has occurred.
- b.) The object of soil sampling is to prove or disprove an application has taken place, or in the case of termiticide treatment, to determine if the proper amount has been applied.
- c.) With the exception of termiticide soil sampling, a protocol has not been established. This is because of the variables involved in dealing with contamination and spills. When involved in these situations the inspector should use his professional judgment to secure samples. The sample or samples should be representative of the situation at hand and should be taken as composites in a defined area. The area sampled should be defined clearly on the sample form and inspection forms. In addition, any other information such as depth sampled, type of sample tool involved, or other pertinent information should be included. All sample tools must be cleaned before and in between unlike samples.

#### **5. Structural Pest (post construction) sampling protocol**

- a.) OSDA residue sampling strategy will include no less than two (2) composite samples from a critical area (i.e., outer foundation wall, inner foundation wall, foundation pier or pipes and conduits, (stub-outs)) for consideration.
  - (1) Remove the top one-half inch of soil and any debris and vegetation as necessary to yield a reasonably clean sample.
  - (2) Use a soil core extractor with an approximate inside diameter of one inch to obtain all soil cores where feasible. When conditions exist that make it unfeasible to use the extractor (such as, in the crawlspace or other cramped areas), a small hand spade may be used with the same procedures. Samples should not be taken in areas where prejudicial conditions beyond the control of the operator exist (e.g. below drains or faucets and obviously disturbed areas).
  - (3) Individual soil core samples should be taken using a standard sampling procedure. A composite sample consists of eight (8) individual one inch diameter cores taken to a depth of six (6) inches or to the top of the footing, no more than two (2) inches from the adjacent construction element that have been combined together. Two (2) individual cores should be taken from each side of the structure (with the understanding that there will be four (4) general sides of each structure). For the foundation pier samples, pull one core from each side of a minimum of two piers to obtain the required eight (8) cores. For pipe samples, obtain one core from each side of a minimum of two (2) pipes per sample for the required (8) cores.
  - (4) Each composite sample should consist of at least enough material to fill one-half of one (1) quart and placed in a one quart brown jar or aluminum foil bag and remain in this container until reaching the laboratory. All samples should be shipped to a central laboratory within seventy-two (72) hours, and maintained at a reasonably stable temperature, not to exceed seventy-five (75) degrees Fahrenheit until shipment to the laboratory. Placing the samples in a cooler with blue ice or an equivalent, and then placing the sample in the inspector's office can easily accomplish this. Do not allow the sample to be left in a vehicle for an extended period of time, unless in a cooler with the temperature stabilized. Or, place samples in an electric cooler. Do not leave the samples inside of the electric cooler within the vehicle for an extended period of time. Move cooler inside and plug into electric within your office to ensure samples are temperature stabilized.
  - (5) The chain of custody should be maintained on all samples. A document signed by all persons responsible for the integrity of the samples should accompany the sample to the laboratory. Lab personnel should also sign this document when the sample arrives at the residue laboratory. This document should be maintained as part of the case file.
  - (6) Soil core composite samples should be obtained within six (6) months of the treatment date.
    - b.) Area where the composite sample was taken must be noted on the accompanying sample report.
    - c.) It should be noted on the sample form if the sample is complaint related.
    - d.) The sample report form is completed.

- e.) The sample may be shipped by mail, freight or hand delivered by the inspector or another designated inspector to the laboratory. If the sample leaves the inspector's custody the sample must be sealed using the EPA method.
- f.) Official samples are for regulatory purposes only and are not to be split or given to the general public. Split samples are only permitted for analytical and internal quality assurance in accordance with laboratory procedure.

## **6. Structural Pest (pre-construction) sampling protocol**

### **a.) Sampling procedure for sampling vertical barriers.**

- (1) ODA residue sampling strategy will include two (2) composite samples, separated into two (2) distinct portions, from a critical area (i.e. outer foundation wall, inner foundation wall, foundation pier or pipes and conduits (stub-outs) for consideration.
  - i. Use a soil core extractor with an approximate inside diameter of one inch to obtain all soil cores where feasible. When conditions exist that make it unfeasible to use the extractor (such as, in the crawlspace or other cramped areas), a small hand spade may be used with the same procedures. Samples should not be taken in areas where prejudicial conditions beyond the control of the operator exist (e.g. below drains or faucets and obviously disturbed areas).
  - ii. Individual soil core samples should be taken using a standard sampling procedure. A composite sample consists of ten (10) individual one inch diameter cores taken to a depth equal to the depth of footing or length of sample probe; whichever is less, no more than two (2) inches from the adjacent construction element, separated into two (2) distinct portions. The first portion consists of that portion of the sample probe from 0 to 2 inches. The second portion consists of that portion of the sample probe from 2.1 inches to the depth of footing or sample probe length; whichever is less. Two (2) individual cores should be taken from each side of the structure [with the understanding that there will be four (4) general sides of each structure] and one (1) individual soil core sample should be taken from the area adjacent to a minimum of two (2) stub-outs. If the footing or substrate is less than six (6) inches deep, probe to the footing and/or substrate and note the approximate depth on the sample form. After each probe, carefully fill the hole in with the surrounding sand. Identify each portion of the composite sample and record on the sample form.
  - iii. Collection of the samples should be accomplished in the following manner:
    - Take 10 (ten) individual 1 inch cores to a depth of 2 inches, within 2 inches of the inside stem-wall and stub-outs. If rod holes are visible in the fill, collect your core sample from midway between the rod holes. Place in a sample bag and label accordingly.
    - Collect the 2nd sample by probing the fill from the same 10 holes used to collect the 1st sample. Each probe should extend from the bottom of the core hole used to collect sample 1, 2.1 inches, to the depth of footing or to the substrate or probe length whichever is less. Place in sample bag and label accordingly.
- (2) Optional procedure for sampling vertical barriers will consist of 10 (ten) individual 1 inch cores to a depth of 6 (six) inches taken in the same locations as described above.
- (3.) Follow the steps and procedures outlined above in post construction sampling (i.e., 5, a.), 5 a., (4), (5) & (6) and 5., b.), c.), d.), e.) & f.).

### **b.) Sampling procedure for sampling horizontal barriers.**

- (1) ODA residue sampling strategy will include no less than two (2) composite samples from a critical area (i.e., open slab area) for consideration.
  - i. Use a soil core extractor with an approximate inside diameter of one inch to obtain all soil cores where feasible. When conditions exist that make it unfeasible to use the extractor (such as, in the crawlspace or other cramped areas), a small hand spade may be used with the same procedures. Samples should not be taken in areas where prejudicial conditions beyond the control of the operator exist (e.g. below drains or faucets and obviously disturbed areas).
  - ii. Sample the treated fill area for horizontal barrier after the treatment has been completed. When sampling the open slab area on pre-construction treatments, obtain the cores in a systematic pattern to a depth of two (2) inches. Obtain a minimum of twenty-four (24) individual soil cores to yield a suitable volume of soil for each sample. Stay at least one (1) foot away from the stem wall and stub-outs.
  - iii. Follow the steps and procedures outlined above in post construction sampling (i.e., 5, a.), 5 a., (4), (5) & (6) and 5., b.), c.), d.), e.) & f.).