

**Are you ready
for these
questions
about
TERMITES?**



1. What type of termite soldier is this?

- A. Native subterranean termite (genus *Reticulitermes*)
- A. Drywood termite
- A. Dampwood termite
- A. Formosan subterranean termite (genus *Coptotermes*)



Found in Georgia

1. What type of termite soldier is this?

A. Native subterranean termite (genus *Reticulitermes*)

A. Drywood termite

A. Dampwood termite

A. Formosan subterranean termite (genus *Coptotermes*)



Drywood termites have teeth on the inside of their mandibles. They have more teeth on their left mandible. All subterranean termites have no teeth on the inside of their mandibles. Dampwood termites are not found in GA.

Found in Georgia

2. What type of termite is this swarming in GA?

- A. Native subterranean termite (*Reticulitermes spp.*)
- A. Formosan subterranean termite (*Coptotermes formosanus*)
- A. Drywood termite
- A. Dampwood termite



2. What type of termite is this swarming in GA?

A. Native subterranean termite (*Reticulitermes spp.*)

A. Formosan subterranean termite (*Coptotermes formosanus*)

A. Drywood termite

A. Dampwood termite



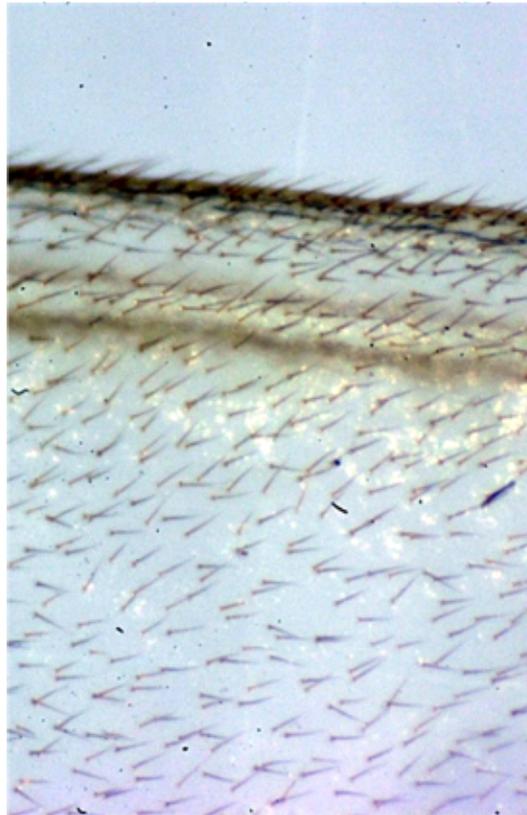
Formosan termites swarm at dusk and a few hours later in large numbers during May and June in Georgia. The other types of termites that swarm at night generally do not swarm in such high numbers.

3. What type of termite has this type of wing?

- A. Native subterranean termite (*Reticulitermes spp.*)
- A. Formosan subterranean termite (*Coptotermes formosanus*)
- A. Drywood termite
- A. Dampwood termite



Found in Georgia



Enlarged portion of front wings

3. What type of termite has this type of wing?

A. Native subterranean termite (*Reticulitermes spp.*)

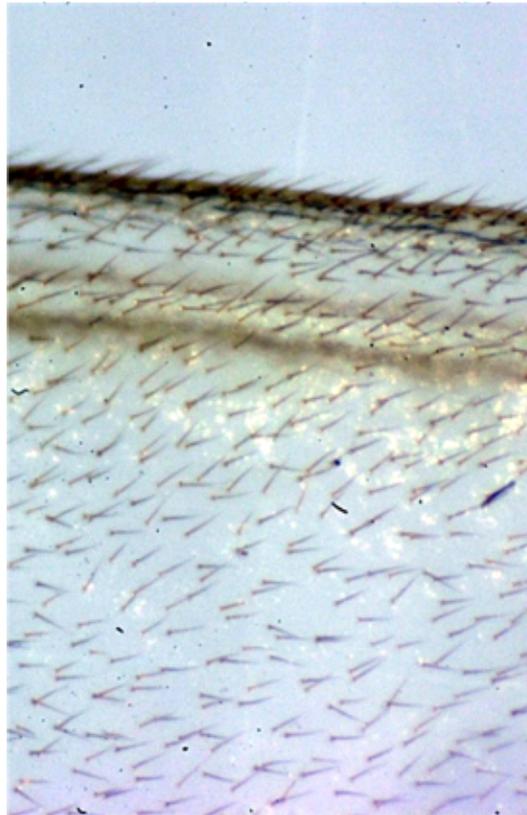
A. Formosan subterranean termite (*Coptotermes formosanus*)

A. Drywood termite

A. Dampwood termite



Found in Georgia



Enlarged portion of front wings

All subterranean termites have only 2 dark veins at the front border of its wings. Formosan subterranean termites are the only subterranean termites that have fine hairs all over its wings.

4. What type of termite caused this damage?

- A. Native subterranean termite (*Reticulitermes spp.*)
- A. Formosan subterranean termite (*Coptotermes formosanus*)
- A. Drywood termite
- A. Dampwood termite



4. What type of termite caused this damage?

- A. Native subterranean termite (*Reticulitermes spp.*)
- A. Formosan subterranean termite (*Coptotermes formosanus*)
- A. Drywood termite**
- A. Dampwood termite



Drywood termite galleries are smooth and sandpapered in appearance and they make galleries across the grain of wood. Generally, they kick their 1 mm long fecal pellets out of “kickout” holes which they make in wood and the pellets pile up below.

5. What type of termite swarms in the day in GA?

- A. Native subterranean termite (*Reticulitermes spp.*)
- A. Formosan subterranean termite (*Coptotermes formosanus*)
- A. Drywood termite
- A. Dampwood termite



Found in Georgia, swarming to a window in the day

5. What type of termite swarms in the day in GA?

A. **Native subterranean termite (*Reticulitermes spp.*)**

A. Formosan subterranean termite (*Coptotermes formosanus*)

A. Drywood termite

A. Dampwood termite

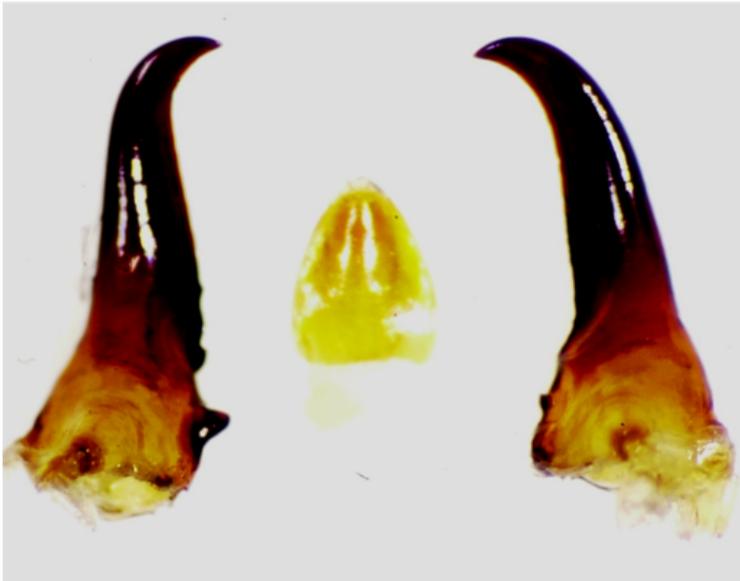


Found in Georgia, swarming to a window in the day

These Eastern subterranean termites are swarming to a window during the day. Formosan termites swarm at dusk and a few hours later. Most drywood termites swarm in the evening. The Western drywood termite swarms during the day, but its head is reddish-brown and has smoky wings, not a black head with transparent wings, like the Eastern subterranean termite.

6. What type of termite is this based on its mandibles?

- A. Subterranean termite
- A. Drywood termite

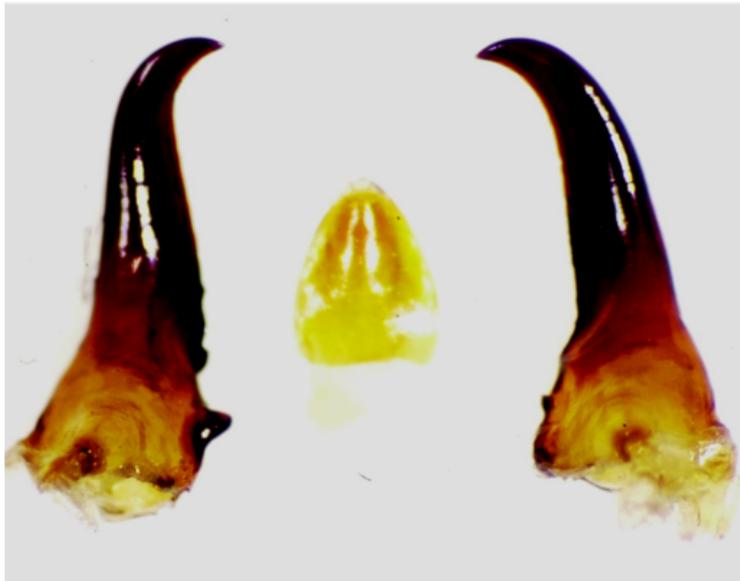


Found in Georgia

6. What type of termite is this based on its mandibles?

A. **Subterranean termite**

B. Drywood termite



Found in Georgia

Subterranean termites have no teeth on the inside of their mandibles that can be seen when viewing the termite from above.



Reticulitermes flavipes

Eastern subterranean termite



Coptotermes formosanus

Formosan subterranean termite

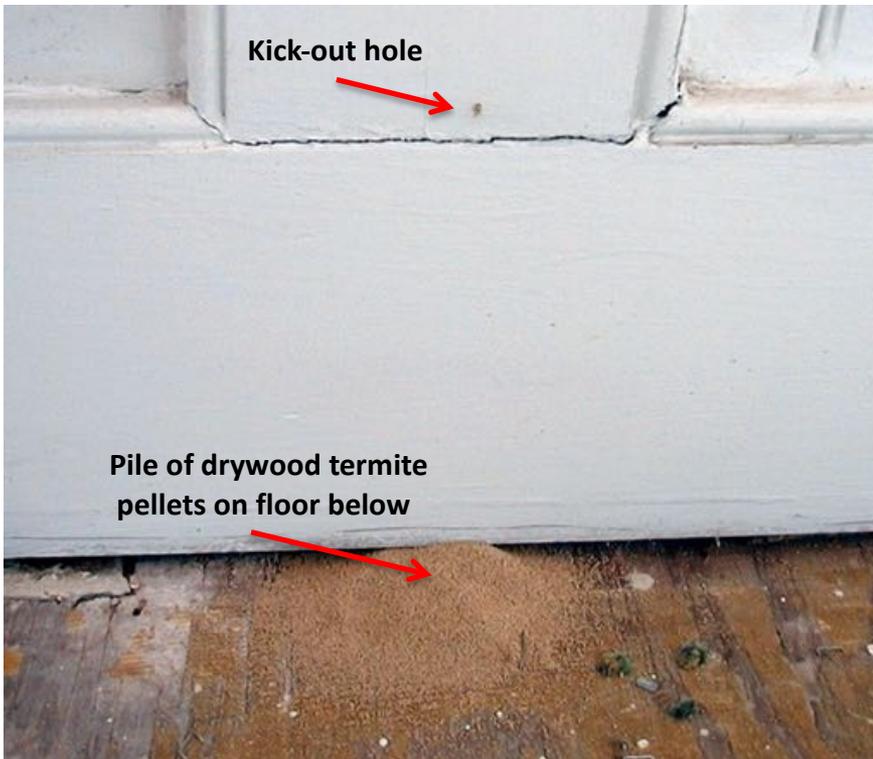
7. What type of termite in GA left this evidence?

- A. Native subterranean termite (*Reticulitermes spp.*)
- A. Formosan subterranean termite (*Coptotermes formosanus*)
- A. Drywood termite
- A. Dampwood termite



7. What type of termite in GA left this evidence?

- A. Native subterranean termite (*Reticulitermes spp.*)
- A. Formosan subterranean termite (*Coptotermes formosanus*)
- A. Drywood termite**
- A. Dampwood termite



Drywood termites kick 1 mm, 6-sided concave fecal pellets with blunt ends out of their galleries in wood through "kickout" holes that they make, where they pile up directly below.



8. What type of termite found in GA is this?

- A. Native subterranean termite (*Reticulitermes spp.*)
- B. Formosan subterranean termite (*Coptotermes formosanus*)
- C. Drywood termite
- D. Dampwood termite



Found in Georgia

8. What type of termite found in GA is this?

- A. Native subterranean termite (*Reticulitermes spp.*)
- B. Formosan subterranean termite (*Coptotermes formosanus*)
- C. Drywood termite**
- D. Dampwood termite



Found in Georgia

This termite is the West Indian powder post drywood termite. It is a widely distributed termite throughout the world and is not native to GA. It is not found living outside in nature except in Chile. It is a domestic pest in the US, brought into structures in infested wood such as in pianos, furniture, baskets, organs, and in wood that is already infested.

9. What type of termite is this?

- A. Native subterranean termite (*Reticulitermes spp.*)
- A. Formosan subterranean termite (*Coptotermes formosanus*)
- A. Drywood termite
- A. Dampwood termite



Found in Savannah, GA

9. What type of termite is this?

- A. Native subterranean termite (*Reticulitermes spp.*)
- A. Formosan subterranean termite (*Coptotermes formosanus*)
- A. Drywood termite**
- A. Dampwood termite



Found in Savannah, GA

Notice that the soldier has teeth that are visible on the inside of its mandibles. Both drywood and dampwood termites have teeth on the inside of their mandibles, but dampwood termites are not found in Georgia. These termites are drywood termites, *Incisitermes snyderi*. They are native to the southeastern U.S. and are more commonly found near the coast.

10. What type of termite is this?

- A. Native subterranean termite (Genus *Reticulitermes*)
- A. Formosan subterranean termite (*Coptotermes formosanus*)
- A. Drywood termite
- A. Dampwood termite



Not found in Georgia

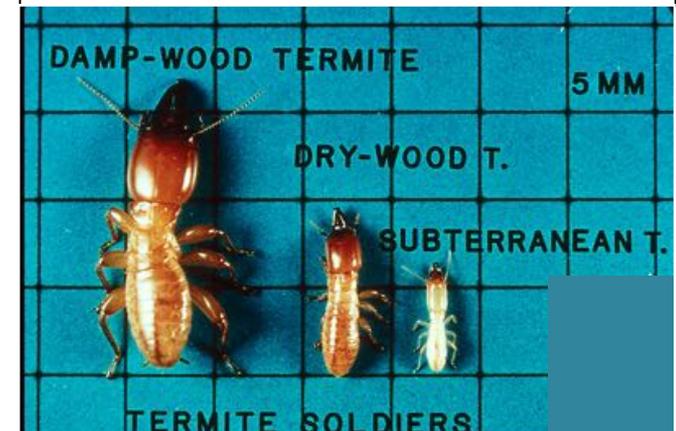
10. What type of termite is this?

- A. Native subterranean termite (Genus *Reticulitermes*)
- A. Formosan subterranean termite (*Coptotermes formosanus*)
- A. Drywood termite
- A. Dampwood termite**



Not found in Georgia

This is a dampwood termite. It is the only termite listed above that is not found in Georgia. Dampwood termite soldiers are much larger and longer than subterranean or drywood termite soldiers.



11. What type of soldier termite is this?

- A. Native subterranean termite (Genus *Reticulitermes*)
- A. Formosan subterranean termite (*Coptotermes formosanus*)
- A. Drywood termite
- A. Dampwood termite



Found in Columbus, GA

11. What type of soldier termite is this?

A. Native subterranean termite (Genus *Reticulitermes*)

A. Formosan subterranean termite (*Coptotermes formosanus*)

A. Drywood termite

A. Dampwood termite



Found in Columbus, GA

It is the only soldier termite in Georgia that has a tear-dropped shaped head. Formosan subterranean termite soldiers are very aggressive! 10% to 15% of the caste members in a Formosan subterranean termite colony are soldiers. If you probe wood, you will almost immediately see Formosan soldiers amass at the area probed. Formosan termite colonies, on an average, are much larger than native subterranean termite colonies...therefore, they do significantly more damage to any one structure than native subterranean termites do.



12. What type of termite caused this damage?

- A. Native subterranean termite (*Reticulitermes spp.*)
- A. Formosan subterranean termite (*Coptotermes formosanus*)
- A. Drywood termite



12. What type of termite caused this damage?

A. Native subterranean termite (*Reticulitermes spp.*)

A. Formosan subterranean termite (*Coptotermes formosanus*)

A. Drywood termite



It is difficult to tell the difference between wood that is damaged by native subterranean termites and by Formosan subterranean termites without finding any soldiers. All subterranean termites eat the soft, spring wood along the grain of the wood, so it often has the appearance of being laminated. There may also be some mud in the galleries. Drywood and dampwood termites eat across the grain of wood and have no mud in their galleries.

13. What type of termite caused this damage?

- A. Native subterranean termite (*Reticulitermes spp.*)
- A. Formosan subterranean termite (*Coptotermes formosanus*)
- A. Drywood termite
- A. Dampwood termite



13. What type of termite caused this damage?

A. Native subterranean termite (*Reticulitermes spp.*)

A. Formosan subterranean termite (*Coptotermes formosanus*)

A. Drywood termite

A. Dampwood termite

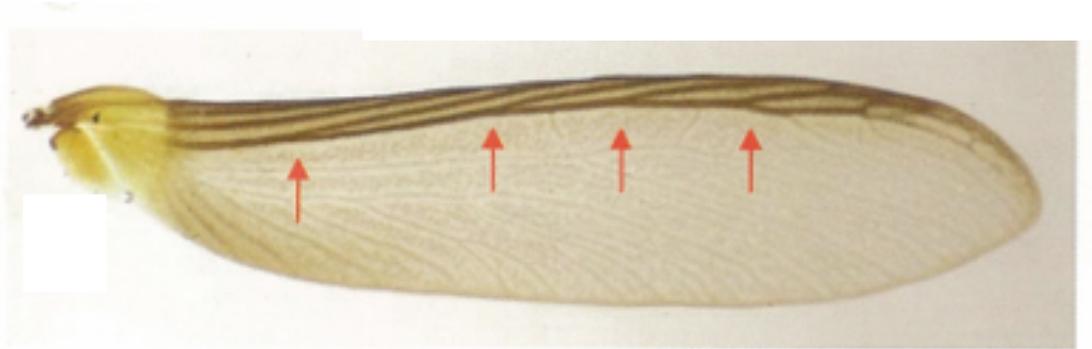


Formosan carton is made of soil and chewed-up bits & pieces of wood that these termites cement together by saliva and feces to form a hard nest, usually within walls. Large carton nests can actually cause walls to bulge.

These carton nests house thousands of termites as well as hold moisture. Once the carton nest is established, Formosan termites can live indefinitely in them without soil contact.

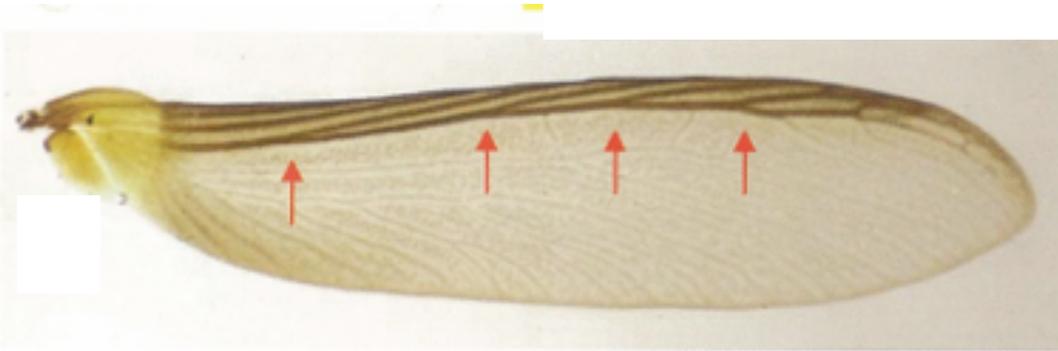
14. This type of termite is primarily found in coastal states. Which is it?

- A. Native subterranean termite (*Reticulitermes spp.*)
- A. Formosan subterranean termite (*Coptotermes formosanus*)
- A. Drywood termite



14. This type of termite is primarily found in coastal states. Which is it?

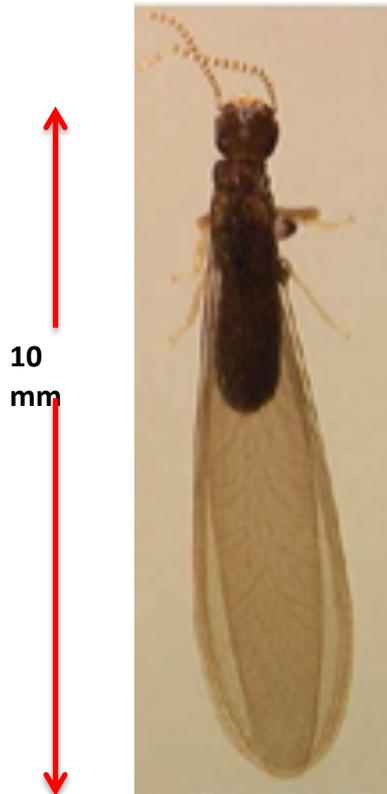
- A. Native subterranean termite (*Reticulitermes spp.*)
- A. Formosan subterranean termite (*Coptotermes formosanus*)
- A. Drywood termite**



Drywood termite wings have 3 or more dark veins at their base where they join their thorax. Further away from their body on the wings, dark diagonal cross-veins can be observed. Subterranean termites only have 2 dark veins at their base and have no dark cross-veins.

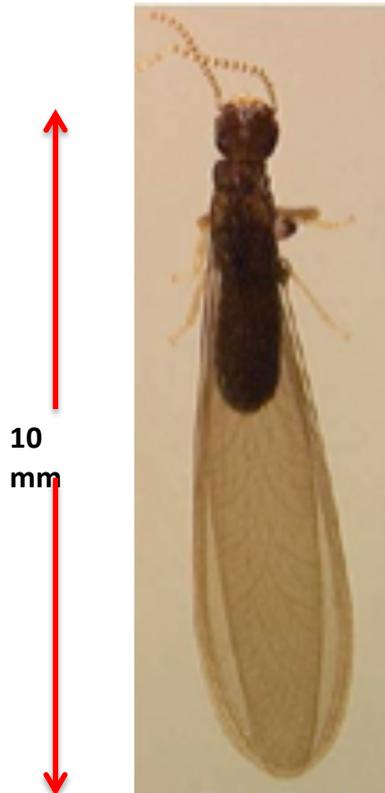
15. What type of swarmer termite is this?

- A. Native subterranean termite (*Reticulitermes spp.*)
- A. Formosan subterranean termite (*Coptotermes formosanus*)
- A. Drywood termite
- A. Dampwood termite



15. What type of swarmer termite is this?

- A. **Native subterranean termite (*Reticulitermes spp.*)**
- B. Formosan subterranean termite (*Coptotermes formosanus*)
- C. Drywood termite
- D. Dampwood termite



Native subterranean termite swarmers are about 7 mm to 10 mm in length, from the tip of their heads to the tip of their wings.

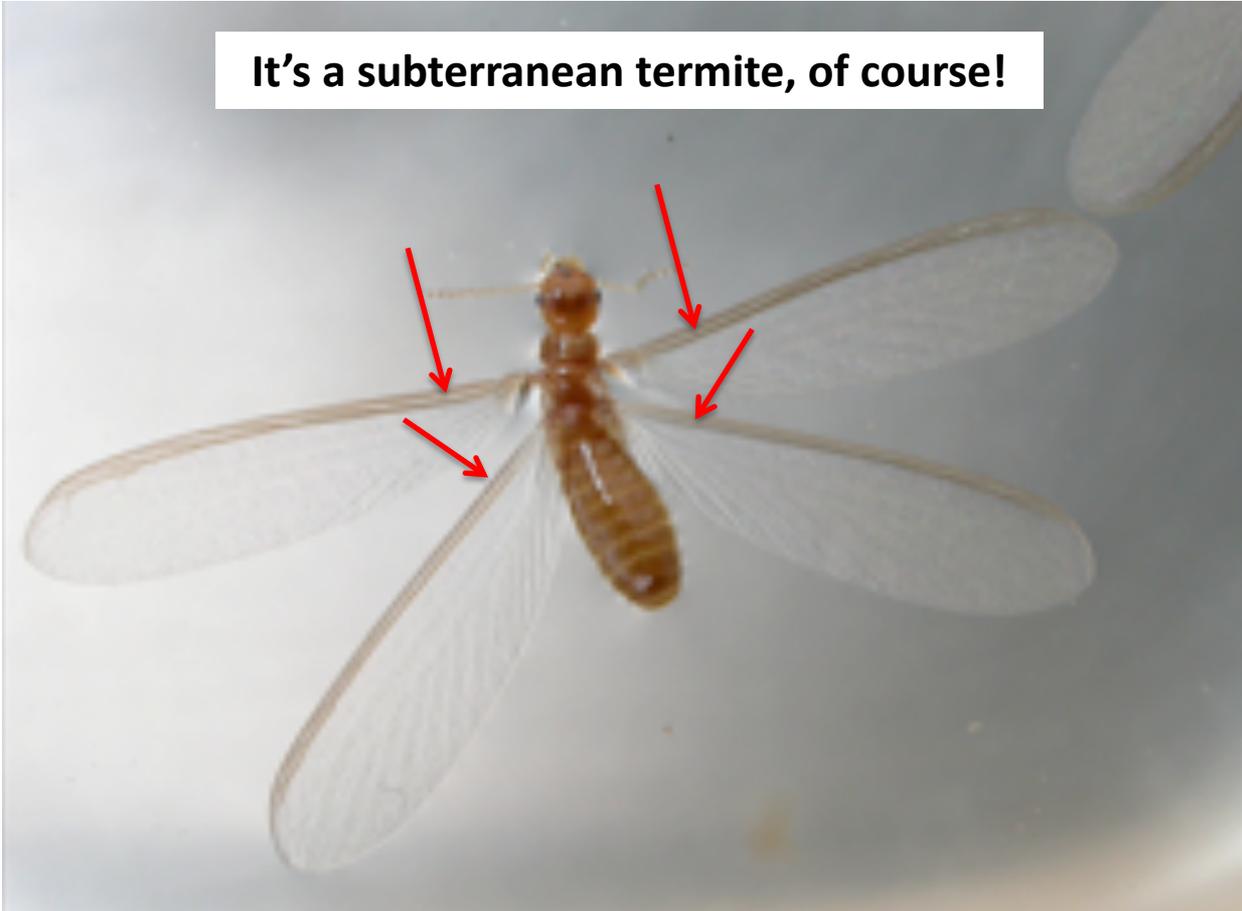
Formosan subterranean termite swarmers are between 13 and 15 mm in length, from the tip of their heads to the tip of their wings.

Drywood termite swarmers are generally 10 mm to 13 mm in length, from the tip of their heads to the tip of their wings.

Dampwood termite swarmers are from 15 mm to 25 mm in length, from the tip of their heads to the tip of their wings.

What type of termite is this?

It's a subterranean termite, of course!



Just because it has a light brown body does not mean it can't be a subterranean termite swarmer. Remember, subterranean termite swarmers have only 2 dark veins at the front of its wings. Drywood and dampwood termites have 3 or more dark veins at the front of its wings...and also have dark diagonal cross-veins.

16. What type of termite left this evidence?

- A. Native subterranean termite (*Reticulitermes spp.*)
- A. Drywood termite
- A. Dampwood termite



16. What type of termite left this evidence?

A. Native subterranean termite (*Reticulitermes* spp.)

A. Drywood termite

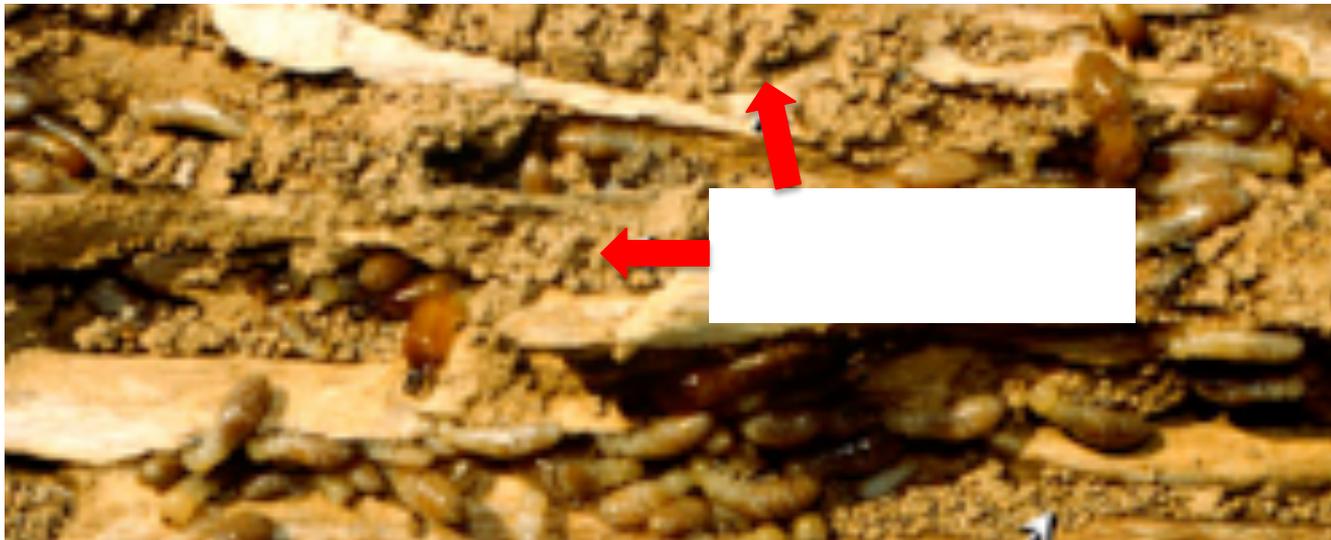
A. Dampwood termite



All the subterranean termite species found in Georgia build mud tubes (tunnels) with soil particles and bits of pieces of wood that are cemented together with saliva and fecal material. They use these mud tubes to travel from the soil to areas above ground to find wood and other cellulose materials for food. These tunnels absorb moisture from the air (providing them with the moisture needed to survive above ground for short periods of time), protect them from the desiccating effects of air) and provide them protection from some of their natural enemies, predators such as ants.

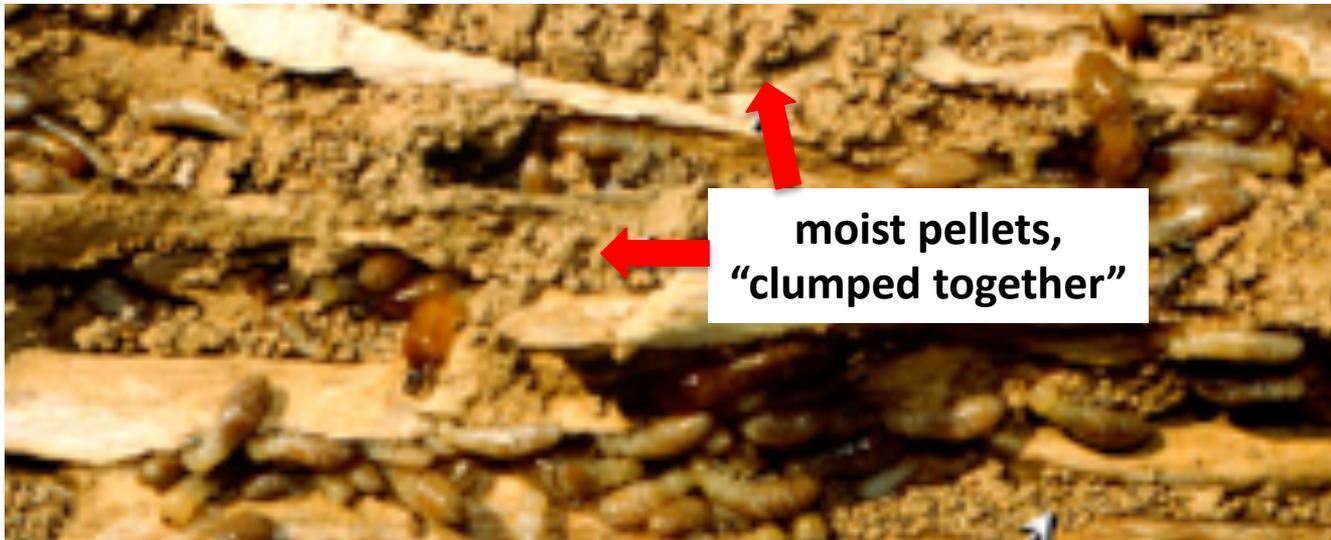
17. What type of termite is this?

- A. Native subterranean termite (*Reticulitermes spp.*)
- A. Drywood termite
- A. Dampwood termite



17. What type of termite is this?

- A. Native subterranean termite (*Reticulitermes spp.*)
- A. Drywood termite
- A. Dampwood termite**



Dampwood termites produce fecal pellets that are moist and are “clumped together” inside their galleries, not kicked out of the galleries of the wood they are feeding on, like drywood termites. Their fecal pellets are 3 mm size and lack longitudinal lines. Drywood termite fecal pellets are much smaller (1 mm) and are 6 sided concave pellets with blunt ends. Subterranean termites do not produce fecal pellets.

18. What type of swarmer termite is this?

- A. Native subterranean termite (*Reticulitermes spp.*)
- A. Formosan subterranean termite (*Coptotermes formosanus*)
- A. Drywood termite
- A. Dampwood termite

15 to 25 mm
in length



18. What type of swarmer termite is this?

- A. Native subterranean termite (*Reticulitermes spp.*)
- A. Formosan subterranean termite (*Coptotermes formosanus*)
- A. Drywood termite
- A. Dampwood termite**

15 to 25 mm
in length



Dampwood termites are not found in Georgia. They are found in Florida, Montana, Idaho, Northern Nevada, Oregon, Northern California and Washington. They are often found infesting wood that is in contact with the ground and has excess moisture. They nest in wet wood found above the ground. In nature, they nest inside the trees. They do not build mud tunnels, but they do produce moist, 3 mm long fecal pellets that are clumped together inside their nests and in the wood on which they are feeding.

19. What type of swarmer termite is this?

- A. Native subterranean termite (*Reticulitermes spp.*)
- A. Formosan subterranean termite (*Coptotermes formosanus*)
- A. Drywood termite
- A. Dampwood termite

8 mm in
length



19. What type of swarmer termite is this?

A. **Native subterranean termite (*Reticulitermes* spp.)**

A. Formosan subterranean termite (*Coptotermes formosanus*)

A. Drywood termite

A. Dampwood termite

Even though this termite is yellowish brown in color, it is one of the five native subterranean termites of the genus *Reticulitermes* that is found in Georgia, which range from about 7 mm to 10 mm in length, from the tip of their heads to the tip of their wings.



8 mm in length



R. virginicus *R. nelsonae* *R. hageni* *R. mallei* *R. flavipes*

These are the 5 *Reticulitermes* species that are found in Georgia

20. For what type of termite is this house in GA being treated?

- A. Native subterranean termite (*Reticulitermes spp.*)
- A. Drywood termite
- A. Dampwood termite



20. For what type of termite is this house in GA being treated?

A. Native subterranean termite (*Reticulitermes spp.*)

A. Drywood termite

A. Dampwood termite



Drywood termites stay up in wood without the need to go to the soil for moisture. The most effective method of controlling drywood termites in a structure is to fumigate it with sulfuryl fluoride. It is the only fumigant that is currently registered for the control of drywood termites in structures in the U.S.

21. What type of swarmer termite is this?

- A. Native subterranean termite (*Reticulitermes spp.*)
- A. Drywood termite
- A. Dampwood termite

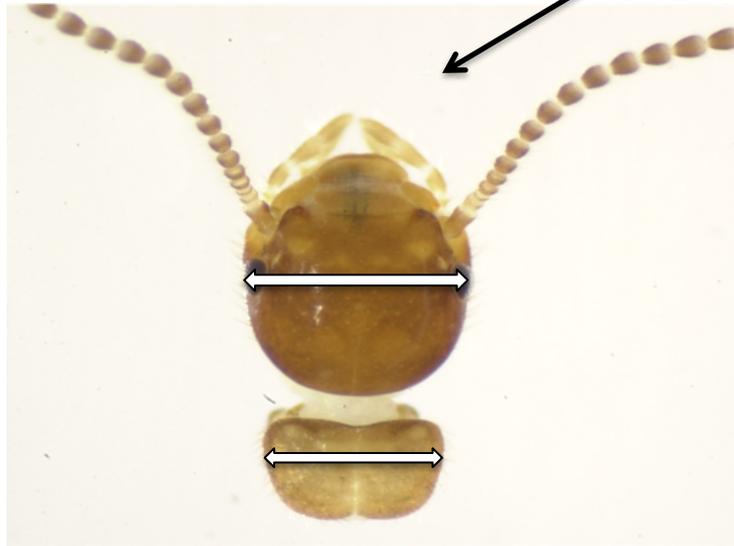


21. What type of swarmer termite is this?

A. Native subterranean termite (*Reticulitermes* spp.)

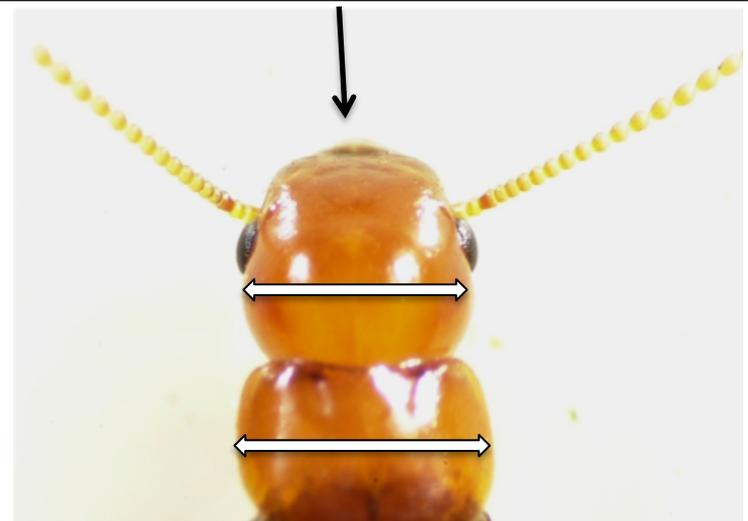
A. Drywood termite

A. Dampwood termite



The pronotum of this swarmer termite is not as wide as its head. It is a native subterranean termite.

The pronotums of drywood and dampwood swarmer termites are slightly wider than their heads and much larger than the pronotum of a subterranean termite.



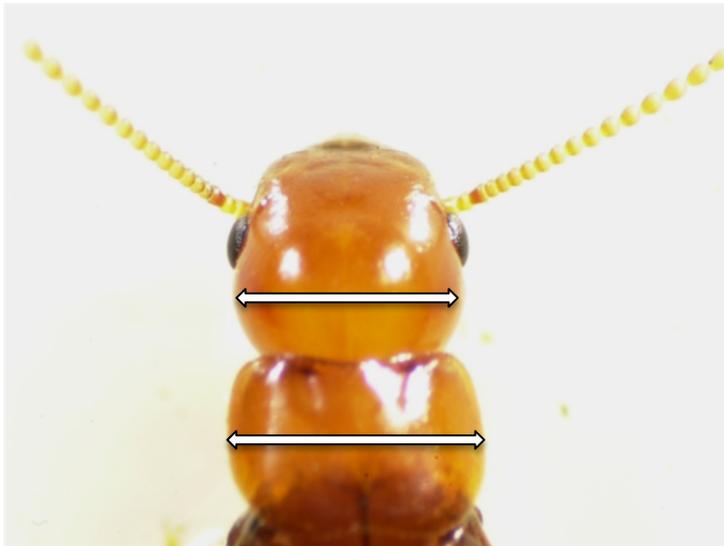
22. What type of swarmer termite is this?

- A. Native subterranean termite (*Reticulitermes spp.*)
- A. Formosan subterranean termite (*Coptotermes formosanus*)
- A. Drywood termite



22. What type of swarmer termite is this?

- A. Native subterranean termite (*Reticulitermes spp.*)
- A. Formosan subterranean termite (*Coptotermes formosanus*)
- A. Drywood termite**



The pronotum of the drywood termite swarmer is wider than its head. Yes, it's a drywood termite swarmer.



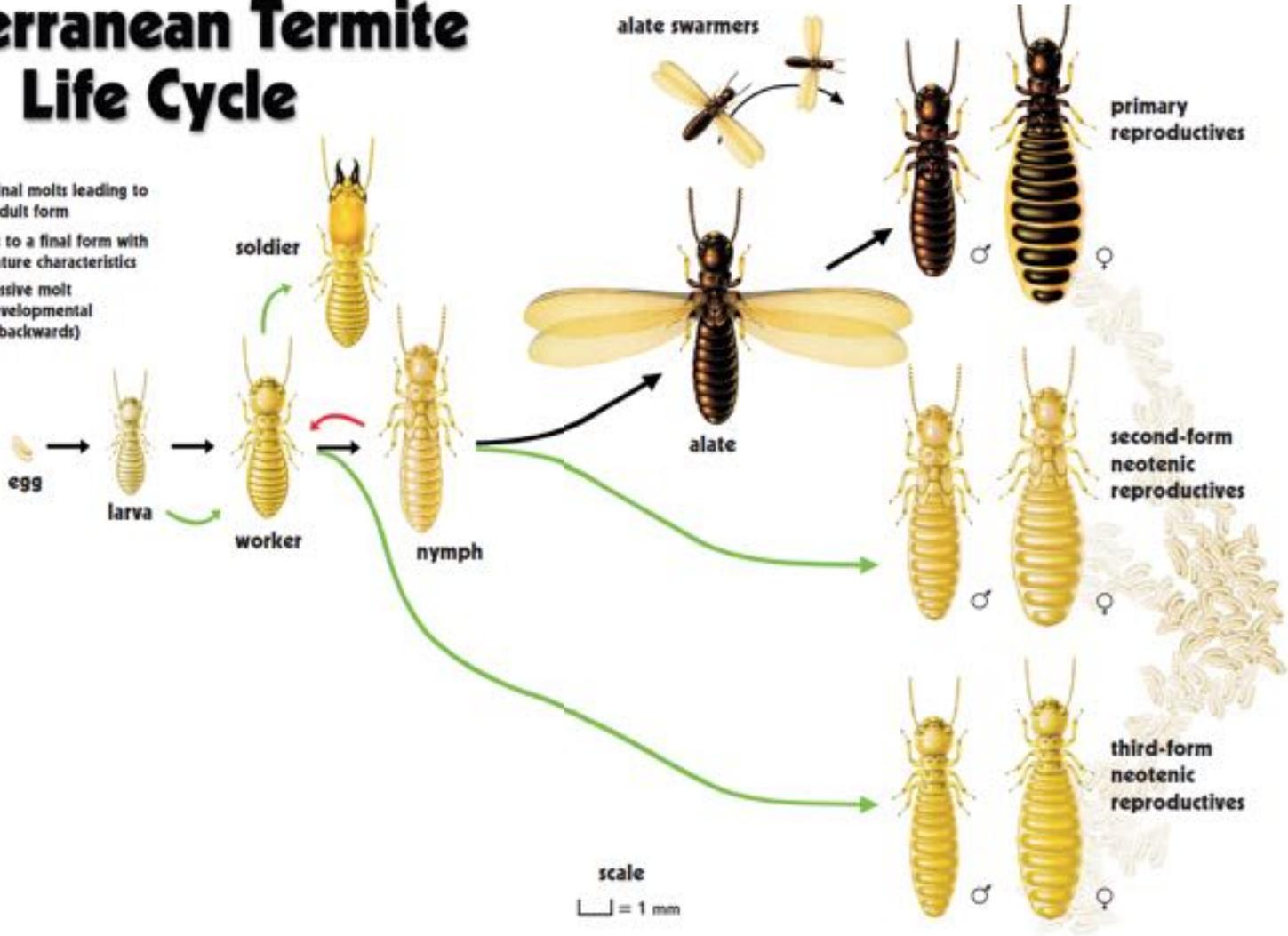
The Drywood Termite Zone



Drywood termites are most often found in coastal states of the southern U.S. They are much more common near the coast than the interior of these coastal states.

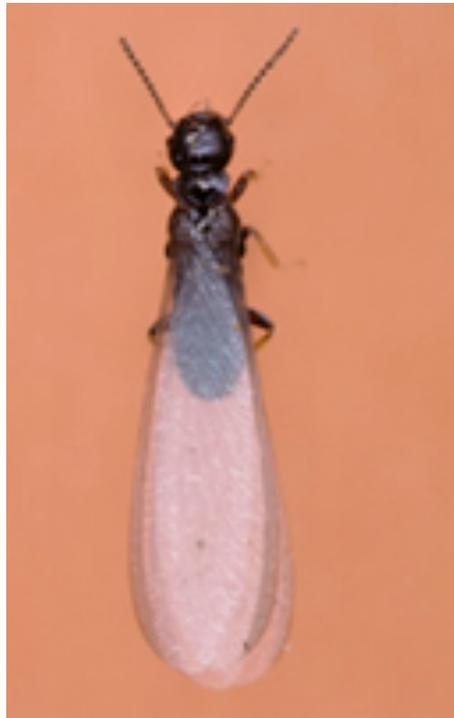
Subterranean Termite Life Cycle

- black lines - imaginal molts leading to the adult form
- green lines - molts to a final form with immature characteristics
- red line - regressive molt (a developmental step backwards)



23. What is the caste member of this termite?

- A. Worker
- A. Soldier
- A. Primary reproductive
- A. Supplementary reproductive

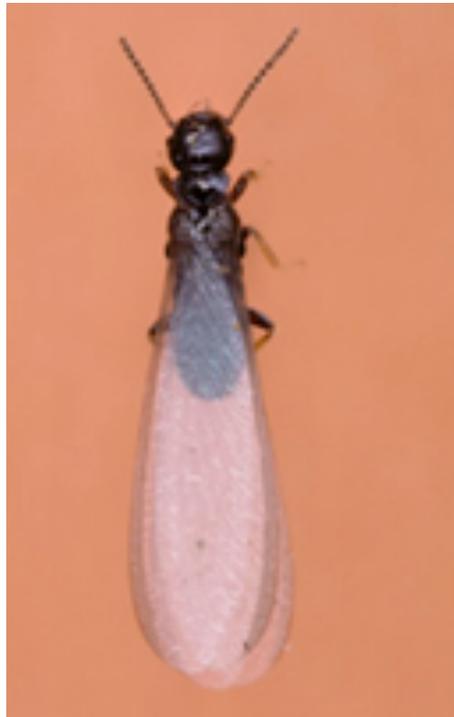


23. What is the caste member of this termite?

- A. Worker
- A. Soldier
- A. Primary reproductive**
- A. Supplementary reproductive

If it has wings, it is called a primary reproductive, swarmer or alate.

If it has lost its wings after flight, it is called a de-alate.



24. What caste member of termite is this?

- A. Worker
- A. Soldier
- A. Primary reproductive
- A. Supplementary reproductive



24. What caste member of termite is this?

- A. Worker
- A. Soldier
- A. Primary reproductive
- A. Supplementary reproductive**



Supplementary reproductives (both secondary and tertiary) are longer than the worker caste.

Secondary reproductives develop from nymphs and have functional eyes and wing buds, but lack functional wings. When the queen dies, the secondary reproductives take over egg laying of the termite colony in the soil.

Tertiary reproductives develop from workers and lack eyes and wing buds. They develop when workers are isolated from the queen and are no longer influenced by the queen's pheromones, such as when they are in moist wood above ground and no longer need to return to the soil. They can reproduce and form an above ground satellite colony.

25. What caste member of termite are these?

- A. Worker
- A. Soldier
- A. Primary reproductive
- A. Supplementary reproductive



25. What caste member of termite are these?

A. Worker

A. Soldier

A. Primary reproductive

A. Supplementary reproductive



Soldier termites defend the termite colony against their enemies, mainly ants. Their long mandibles are for fighting, not for eating! Soldier termites are fed by workers and nymphs.

26. What caste member of termite is this?

- A. Worker
- A. Soldier
- A. Queen
- A. Swarmer
- A. Supplementary reproductive



26. What caste member of termite is this?

A. Worker

A. Soldier

A. Queen

A. Swarmer

A. Supplementary reproductive

Workers take only a couple of months to develop from an egg. Workers are usually light in color and do not have eyes, wings or any specialized structures. Workers perform most of the work of the colony. They build mud tunnels, build the nest, gather food, feed the other members of the termite colony (soldiers and reproductives), groom the Queen and damage wooden structures (feeding on the cellulose in wood).



27. What caste member is the most numerous in a subterranean termite colony?

A. Worker

A. Soldier

A. Queen

A. Primary reproductive

A. Supplementary reproductive

27. What caste member is the most numerous in a subterranean termite colony?

A. Worker

A. Soldier

A. Queen

A. Primary reproductive

A. Supplementary reproductive



Workers are the most numerous individual of a termite colony.

28. Which caste member's only duty is to defend the colony from ants and other predators?

- A. Worker
- A. Soldier
- A. Queen
- A. Primary reproductive
- A. Supplementary reproductive



28. Which caste member's only duty is to defend the colony from ants and other predators?

- A. Worker
- A. Soldier**
- A. Queen
- A. Primary reproductive
- A. Supplementary reproductive



Soldiers have enlarged mandibles, built to defend the colony against its enemies, especially ants. It is amazing that soldiers have no eyes and yet they are able to kill ants entering their galleries in wood, their tunnels or their nest. Can you imagine a blind boxer winning a boxing match?

29. Which caste members are responsible for swarming from an established colony in order to start a new colonies?

A. Workers

A. Soldiers

A. Queens

A. Primary reproductives

A. Supplementary reproductives

29. Which caste members are responsible for swarming from an established colony in order to start a new colonies?

- A. Workers
- A. Soldiers
- A. Queens
- A. Primary reproductives**
- A. Supplementary reproductives



Primary reproductives are called swarmers or alates. They have wings.

A new subterranean termite colony matures in about six to seven years. It is at this time, alates are produced. Alates take 12 months to develop before they leave their nest in a swarm (usually on a sunny day after a rain shower during March, April or May). Male and female swarmers pair up, find a crack in the ground, enter it and build a nest. There they mate and start a new colony.

Swarming

- Soon after swarming, male and female alates lose their wings and form pairs
- A pair that successfully establishes a new colony is called the king (male) and queen (female) of the colony
- They are also referred to as the primary (first form) reproductives because they have attained the adult stage and are physically and sexually mature
- Within the first few days or weeks after pairing, the queen lays the first clutch several dozen eggs; small numbers of eggs are laid intermittently thereafter



Swarming

- The king and queen take care of the first batch(es) of eggs and young
- When a number of workers are present, they begin caring for their younger nestmates, eggs, and the primary reproductives
- Initial colony growth is slow, but as the queen ages her egg-laying capacity increases and colony growth rate accelerates



30. Which caste members are responsible for building mud tunnels, foraging for food, feeding other caste members and grooming the queen?

A. Workers

A. Soldiers

A. Primary reproductives

A. Supplementary reproductives

30. Which caste members are responsible for building mud tunnels, foraging for food, feeding other caste members and grooming the queen?

A. Workers

- A. Soldiers
- A. Primary reproductives
- A. Supplementary reproductives

You can see the creamy-white colored workers surrounding the queen while they groom her.



31. Which caste member's duty is to take over the queen's duties once she has died?

A. Workers

A. Soldiers

A. Queens

A. Primary reproductives

A. Supplementary reproductives

31. Which caste member's duty is to take over the queen's duties once she has died?

- A. Workers
- A. Soldiers
- A. Queens
- A. Primary reproductives
- A. Supplementary reproductives**



The Queen may only be responsible for producing as few as 10,000 members of a colony with 1,000,000 individuals. Once the Queen termite dies, the supplemental reproductives (secondary reproductives) take over the egg laying responsibility of the colony.

32. Subterranean termites belong to the Order:

A. Dermaptera

A. Orthoptera

A. Isoptera

A. Hemiptera

32. Subterranean termites belong to the Order:

- A. Dermaptera
- A. Orthoptera
- C. Isoptera**
- D. Hemiptera

ISOPTERA

Isoptera means equal wings...and a termite has 2 equal size and shape pairs of wings. ISO means “equal” and PTERA means “wings.” This would be the answer if you were taking the Certification exam.

Recently, termites have been added to the **Order Blattodea**, the order that contains cockroaches. This would be the answer if you were taking the Employee Registration exam.

33. All wasps, bees, hornets, yellow jackets and termites are social insects.

A. True

A. False

33. All wasps, bees, hornets, yellow jackets and termites are social insects.

A. True

A. False

Some wasps and bees are solitary insects.
However, all termites are social insects.



34. Termites can digest cellulose because they have symbiotic microorganisms in their gut that can break down cellulose into usable nutrients that termites can digest.

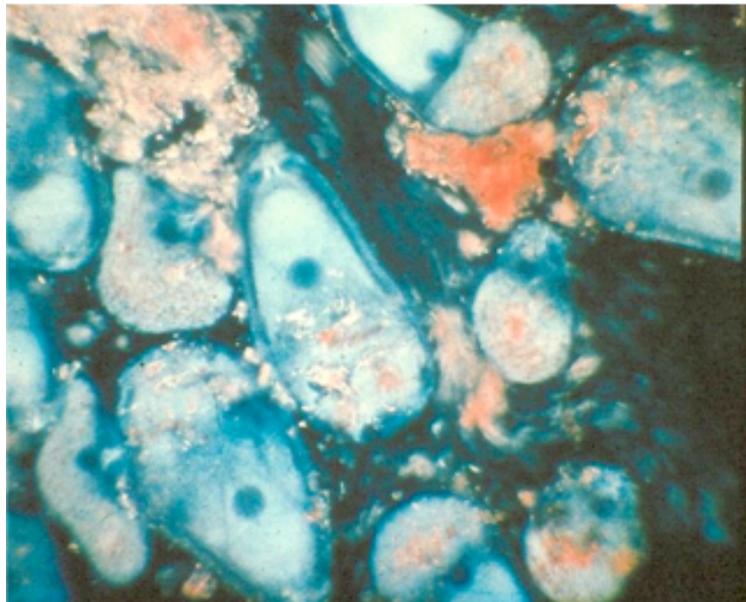
A. True

A. False

34. Termites can digest cellulose because they have symbiotic microorganisms in their gut that can break down cellulose into usable nutrients that termites can digest.

A. True

A. False



35. Termites are the only insects that can digest cellulose.

A. True

A. False

35. Termites are the only insects that can digest cellulose.

A. True

A. False



Anobiid beetles, the Old House Borer and primitive cockroaches of the genus *Cryptocercus* can all eat wood and digest cellulose because of they have microorganisms in their digestive system that can break down cellulose to nutrients that they can digest.

36. Workers and soldiers are the only caste members that are blind.

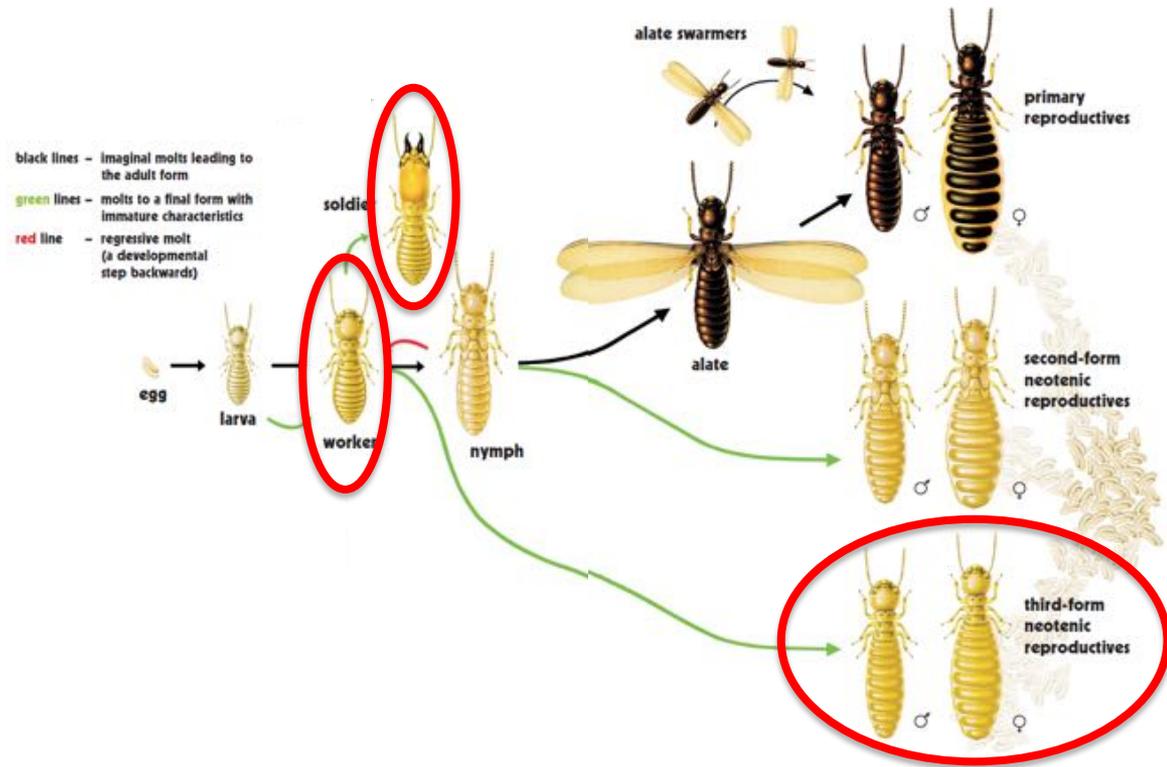
A. True

A. False

36. Workers and soldiers are the only caste members that are blind.

A. True

A. False



Workers, soldiers and tertiary reproductives are blind and all lack wings or wing buds.

37. A subterranean termite colony may forage for distances up to 200 yards from the nest.

A. True

A. False

37. A subterranean termite colony may forage for distances up to 200 yards from the nest.

A. True

A. False

The foraging territory of *Reticulitermes* species may cover up to a half (½) acre, and workers may forage 260 lin. ft. (87 lin. yds.) from one spot to the next while foraging.

Formosan termites have been shown to forage over 1½ acres and worker may forage a linear distance that approaches 330 ft. (110 yds.)

38. An average Eastern subterranean termite colony is made up of from 1 to 5 million worker termites in size.

A. True

A. False

38. An average Eastern subterranean termite colony is made up of from 1 to 5 million worker termites in size.

A. True

A. False

The average, single subterranean termite colony of *Reticulitermes flavipes*, the Eastern subterranean termite, contains about 60,000 to 1,000,000 workers.

The average, single Formosan subterranean termite (*Coptotermes formosanus*) colony contains about 350,000 to 2,000,000 workers.

39. Temperature, moisture and other environmental factors influence termite swarming?

A. True

A. False

39. Temperature, moisture and other environmental factors influence termite swarming?

A. True

A. False



Subterranean termites "swarm" as the weather begins to warm, usually at the beginning of Spring, after a rain event.

40. Swarmer termites retain their wings until after they mate. Then they break them off.

A. True

A. False

40. Swarmer termites retain their wings until after they mate. Then they break them off.

A. True

A. False



After a brief flight, the wings are broken off, and males and females pair and attempt to establish a new colony in the soil.

They are particularly defenseless at this time, and most die or are killed by their natural enemies (birds, ants, etc.).

They may also succumb to desiccation and other environmental factors.

Each surviving pair makes a small cell in the ground which they mate and lay eggs.

41. Subterranean termite swarmers are strong fliers, often flying distances of ½ mile or more.

A. True

A. False

41. Subterranean termite swarmers are strong fliers, often flying distances of ½ mile or more.

A. True

A. False

Termites are not strong fliers. However, wind may carry them further distances.

42. Swarmers are generally produced about two years after a new colony is started.

A. True

A. False

42. Swarmers are generally produced about two years after a new colony is started.

A. True

A. False

A new subterranean termite colony matures in about six to seven years. It is at this time, swarmers are produced. They take 12 months to develop before they leave their nest in a swarm (usually on a sunny day after a rain shower during March, April or May).

43. In a new subterranean termite colony that is established in Spring after a swarm, the first eggs laid by the Queen become soldiers in order to protect the Queen. Later, the Queen produces eggs that become workers.

A. True

A. False

43. In a new subterranean termite colony that is established in Spring after a swarm, the first eggs laid by the Queen become soldiers in order to protect the Queen. Later, the Queen produces eggs that become workers.

A. True

A. False

In new colonies, larvae from the first small batch of eggs usually all become workers. Nymphs and soldiers are not normally produced until later egg-laying.

44. Drywood termites have no soldier caste.

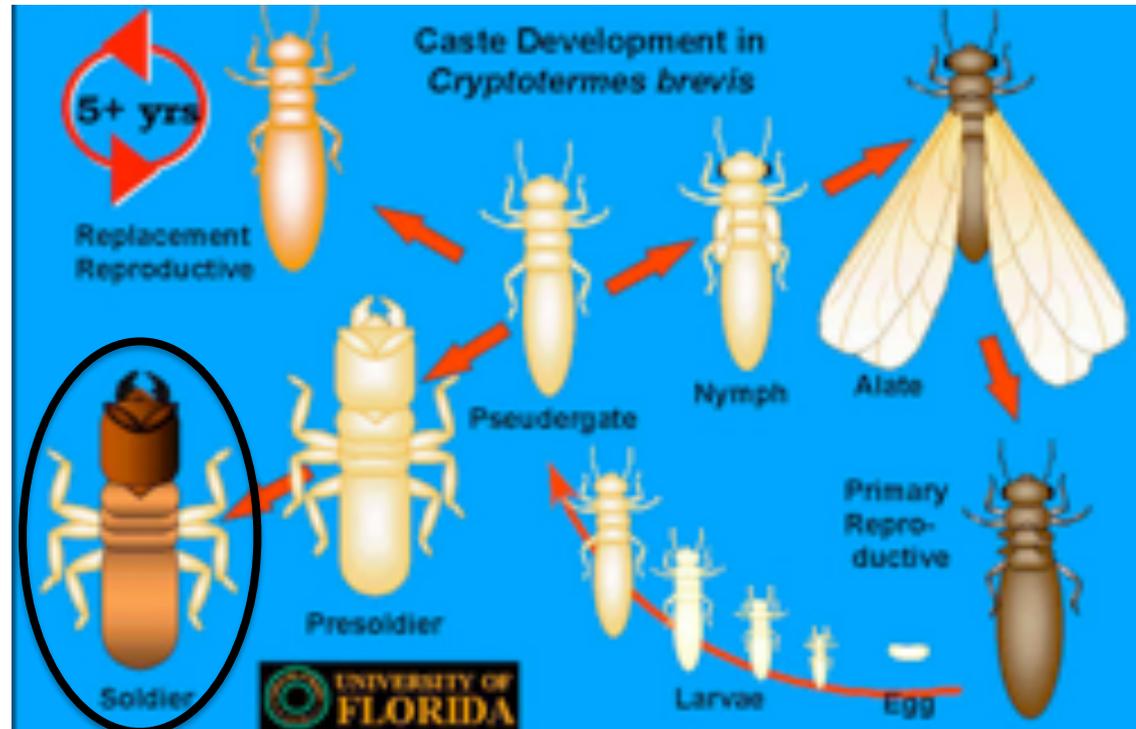
A. True

A. False

44. Drywood termites have no soldier caste.

A. True

A. False

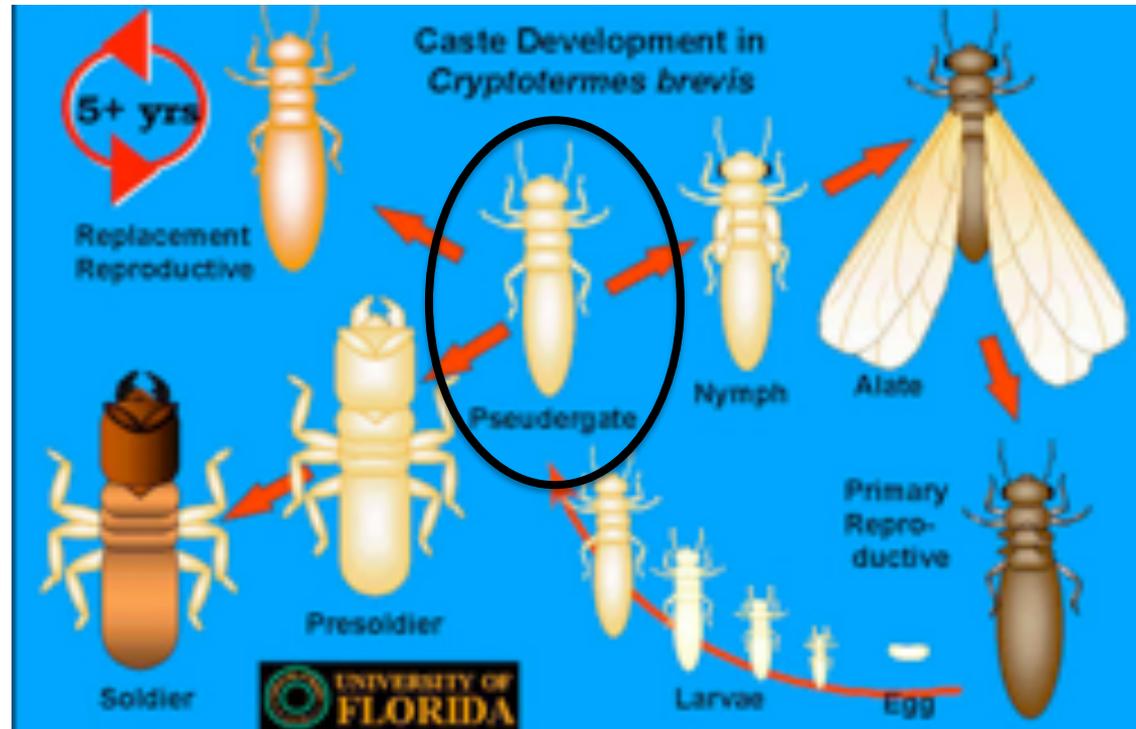


45. Drywood termites have no worker caste.

- A. True
- B. False

45. Drywood termites have no worker caste.

- A. True
- B. False



46. Each Formosan subterranean termite eats about 6 times more wood per day than does an Eastern subterranean termite.

A. True

A. False

46. Each Formosan subterranean termite eats about 6 times more wood per day than does an Eastern subterranean termite.

A. True

A. False

They eat about the same amount of wood. If the estimated number of termites in an average Eastern subterranean termite colony is 60,000 and is 350,000 in an average Formosan subterranean termite colony. An average Formosan subterranean termite colony eats about 6 times more wood per day than each Eastern subterranean termite colony because it is 6 times the size.

	Formosan subterranean termite colony	Eastern subterranean termite colony
Average # of workers per colony	350,000	60,000
Wood consumption per colony/day (g)	31.04	4.98
Days to consume a board foot of wood	38	236
Days to consume a 2X4 board 1' long	19	118

47. When do Formosan subterranean termites swarm in Georgia?

- A. During the mid-day, from March through April
- B. During the mid-day, from May through June
- C. At dusk and about 2 hours later, from March through April
- D. At dusk and about 2 hours later, from May through June
- E. In the late evening, from March through April
- F. In the late evening, from May through June

47. When do Formosan subterranean termites swarm in Georgia?

- A. During the mid-day, from March through April
- B. During the mid-day, from May through June
- C. At dusk and about 2 hours later, from March through April
- D. At dusk and about 2 hours later, from May through June**
- E. In the late evening, from March through April
- F. In the late evening, from May through June

48. Swarmer subterranean termites and swarmer ants are often misidentified by homeowners.

A. True

A. False

48. Swarmer subterranean termites and swarmer ants are often misidentified by homeowners.

A. True

A. False



49. Which termites do the most amount of damage to structures each year in the U.S.?

- A. Eastern subterranean termites
- A. Formosan subterranean termites
- A. Drywood termites
- A. Dampwood termites

49. Which termites do the most amount of damage to structures each year in the U.S.?

A. Eastern subterranean termites

A. Formosan subterranean termites

A. Drywood termites

D. Dampwood termites

Even though Formosan subterranean termites do more damage to any one home, the Eastern subterranean termite are significantly more common...so they do more damage to structures each year in the U.S.

50. Are drywood termites attracted to lights?

A. Yes

A. No

50. Are drywood termites attracted to lights?

A. Yes

A. No



Drywood termites attracted to light at a window sill

51. Are subterranean termites attracted to lights?

A. Yes

A. No

51. Are subterranean termites attracted to lights?

A. Yes

A. No



These subterranean termites, on a sunny day, have swarmed to a window sill.



These Formosan subterranean termites have swarmed to stadium lights outside at night

52. How far can supplemental reproductives fly?

- A. They can't fly
- A. About 10 feet
- A. About 100 feet
- A. Greater than 100 feet

52. How far can supplemental reproductives fly?

A. They can't fly

A. About 10 feet

A. About 100 feet

A. Greater than 100 feet

There are 2 kinds of supplemental reproductives in a subterranean termite colony: secondary reproductives and tertiary reproductives.

Secondary reproductives have eyes and wing pads, but never develop wings, therefore, they cannot fly.

Tertiary reproductives do not have eyes (are blind) and do not have wing buds or wings, therefore, they cannot fly.

53. Repellant termiticides are the most effective termiticides. They form an impenetrable barrier through the soil that subterranean termites cannot cross.

A. True

A. False

53. Repellant termiticides are the most effective termiticides. They form an impenetrable barrier through the soil that subterranean termites cannot cross.

A. True

A. False

Repellant termiticide treatments do form a barrier around a structure being treated for subterranean termites, but the treatments are not always perfect, as they may not spread uniformly under the soil due to obstructions. Therefore, they may not form a perfect barrier and termite damage may continue to occur.

Non-repellent termiticide treatments form an invisible, undetectable, slow-acting death zone and are able to be transferred to other colony members through trophallaxis and are more effective than repellent products. US Forest Service Termiticide Efficacy Reports document that Termidor SC (a non-repellent termiticide) out performs any of the repellent synthetic pyrethroid termiticides.

54. Subterranean termite baiting systems use IGR-based baits that rely on the worker termite randomly and continuously foraging to find the bait. They take the bait back to the colony and feed others, and recruit other workers to the bait site/s. The IGR bait is exchanged to other colony members by trophallaxis and it prevents molting of the developing termites that feed on it. It very quickly eliminates all termite colonies in less than 6 months.

A. True

A. False

54. Subterranean termite baiting systems use IGR-based baits that rely on the worker termite randomly and continuously foraging to find the bait. They take the bait back to the colony and feed others, and recruit other workers to the bait site/s. The IGR bait is exchanged to other colony members by trophallaxis and it prevents molting of the developing termites that feed on it. It very quickly eliminates all termite colonies in less than 6 months.

A. True

A. False

If you failed to answer this question correctly, obviously, you have never inspected termite baiting systems.

55. In Georgia, there are 3 types of termite pretreatments that may be performed.

- A. True
- A. False – only one type
- A. False – only two types

55. In Georgia, there are 3 types of termite pretreatments that may be performed.

A. True

A. False – only one type

A. False – only two types

The 3 types of pretreatments that can be performed are:

- **Soil treatments**
- **Bait treatments**
- **Wood treatments**

56. How many inches of clearance must there be between wood and soil in a crawl space for a subterranean termite treatment in GA?

- A. At least 6 inches
- A. At least 12 inches
- A. At least 16 inches
- A. At least 18 inches

56. How many inches of clearance must there be between wood and soil in a crawl space for a subterranean termite treatment in GA?

- A. At least 6 inches
- A. At least 12 inches
- A. At least 16 inches
- A. At least 18 inches**

57. How many inches of clearance must there be between wood and soil on the outside of a structure for a subterranean termite treatment in GA?

- A. At least 6 inches
- A. At least 12 inches
- A. At least 16 inches
- A. At least 18 inches

57. How many inches of clearance must there be between wood and soil on the outside of a structure for a subterranean termite treatment in GA?

A. At least 6 inches

A. At least 12 inches

A. At least 16 inches

A. At least 18 inches

58. What is the highest level above the soil or slab that is adjacent to a foundation wall that you can drill a void and treat it with a termiticide and be in compliance with the Rules of the Structural Pest Control Commission in GA?

A. 6 inches

A. At least 12 inches

A. At least 16 inches

A. At least 18 inches

58. What is the highest level above the soil or slab that is adjacent to a foundation wall that you can drill a void and treat it with a termiticide and be in compliance with the Rules of the Structural Pest Control Commission in GA?

A. 6 inches

A. At least 12 inches

A. At least 16 inches

A. At least 18 inches

59. What rate of application of a termiticide is required to treat all the voids of a foundation wall of a structure for a Comprehensive soil treatment?

- A. 1 gallon per 10 linear feet of foundation wall
- A. 2 gallons per 10 linear feet of foundation wall
- A. 2 gallons per 10 linear feet of foundation wall per foot of depth from the grade to the footer
- A. 4 gallons per 10 linear feet of foundation wall

59. What rate of application of a termiticide is required to treat all the voids of a foundation wall of a structure for a Comprehensive soil treatment?

A. 1 gallon per 10 linear feet of foundation wall

A. 2 gallons per 10 linear feet of foundation wall

A. 2 gallons per 10 linear feet of foundation wall per foot of depth from the grade to the footer

A. 4 gallons per 10 linear feet of foundation wall

60. What rate of application of a termiticide is required to treat the soil on either side of the foundation wall of a crawl space structure for a Comprehensive soil treatment on a new job in GA?

- A. 2 gallons per 10 linear feet of foundation wall
- A. 2 gallons per 10 linear feet of foundation wall per foot of depth from the grade to the footer
- A. 4 gallons per 10 linear feet of foundation wall
- D. 4 gallons per 10 linear feet of foundation wall per foot of depth from the grade to the footer or at least 4 feet deep when the footer is deeper.

60. What rate of application of a termiticide is required to treat the soil on either side of the foundation wall of a crawl space structure for a Comprehensive soil treatment on a new job in GA?

- A. 2 gallons per 10 linear feet of foundation wall
- A. 2 gallons per 10 linear feet of foundation wall per foot of depth from the grade to the footer
- A. 4 gallons per 10 linear feet of foundation wall
- D. 4 gallons per 10 linear feet of foundation wall per foot of depth from the grade to the footer or at least 4 feet deep when the footer is deeper.**

61. Are voids of a structure required to be treated for subterranean termite control when performing a Defined soil treatment in GA?

- A. Yes, all voids must be treated with all types of soil treatments.
- A. No, only voids that are infested by subterranean termites must be treated according to the “Defined soil treatment” section of the Rules of the Structural Pest Control Commission and of the label of the termiticide that you are using.
- A. No, voids are not required to be treated when performing a Defined soil treatment.

61. Are voids of a structure required to be treated for subterranean termite control when performing a Defined soil treatment in GA?

- A. Yes, all voids must be treated with all types of soil treatments.
- A. No, only voids that are infested by subterranean termites must be treated according to the “Defined soil treatment” section of the Rules of the Structural Pest Control Commission and of the label of the termiticide that you are using.**
- C. No, voids are never required to be treated when performing a Defined soil treatment.

62. May all the foundation walls of a dirt-filled porch be horizontally drilled at level up to 1" to 2" below the slab and at 12" intervals or less along those foundation walls and the soil under the slab treated by short-rodding where it is adjacent to the entire interior perimeter walls of the dirt-filled porch on a Comprehensive soil treatment?

- A. No. It may only be vertically drilled within 12" of the interior foundation walls at 12" or less intervals along those walls and treated adjacent to the interior of the foundation wall of a dirt-filled porch on a Comprehensive soil treatment
- B. Yes. The slab of a dirt-filled porch may also be vertically drilled within 12" of its interior foundation walls at 12" or less intervals along those walls and the soil underneath the slab in those areas treated or the foundation walls may be horizontally drilled at 1" to 2" below the slab level and long-rodded to treat those same areas of soil under the slab and adjacent to all the interior walls of the dirt-filled porch..

62. May all the foundation walls of a dirt-filled porch be horizontally drilled at level up to 1" to 2" below the slab and at 12" intervals or less along those foundation walls and the soil under the slab treated by short-rodging where it is adjacent to the entire interior perimeter walls of the dirt-filled porch on a Comprehensive soil treatment?

- A. No. It may only be vertically drilled within 12" of the interior foundation walls at 12" or less intervals along those walls and treated adjacent to the interior of the foundation wall of a dirt-filled porch on a Comprehensive soil treatment
- B. Yes. The slab of a dirt-filled porch may also be vertically drilled within 12" of its interior foundation walls at 12" or less intervals along those walls and the soil underneath the slab in those areas treated or the foundation walls may be horizontally drilled at 1" to 2" below the slab level and long-rodged to treat those same areas of soil under the slab and adjacent to all the interior walls of the dirt-filled porch.**

63. Can a dirt-filled porch be drilled and short-rodged from the side to treat the soil under the slab where it joins the structure on a Defined soil treatment?

- A. Yes. A dirt-filled porch may be horizontally drilled through the foundation wall at up to 1" to 2" below the level of the slab of the dirt-filled porch slab at 12" intervals or less and the soil treated by short-rodging.
- A. No. The slab of a dirt-filled porch may only be vertically drilled at a maximum of 12" away from and at a maximum of 12" intervals along all the interior walls of the dirt-filled porch.
- A. No. The slab of the dirt-filled porch is only required to be vertically drilled at a maximum of 12" away from the foundation wall and at no greater than 12" intervals along where the slab joins the structure.

63. Can a dirt-filled porch be drilled and short-rodged from the side to treat the soil under the slab where it joins the structure on a Defined soil treatment?

- A. Yes. A dirt-filled porch may be horizontally drilled through the foundation wall at up to 1" to 2" below the level of the slab of the dirt-filled porch slab at 12" intervals or less and the soil treated by short-rodging.
- A. No. The slab of a dirt-filled porch may only be vertically drilled at a maximum of 12" away from and at a maximum of 12" intervals along all the interior walls of the dirt-filled porch.
- A. No. The slab of the dirt-filled porch is required to be vertically drilled at a maximum of 12" away from the foundation wall and at no greater than 12" intervals along where the slab joins the structure and the soil beneath treated. No other treatment method of a dirt-filled porch is acceptable in a Defined soil treatment.**

64. How many gallons of a diluted termiticide would be needed to treat the voids of a 45 foot long section of triple-brick wall for a Comprehensive soil treatment on a structure where the depth of the footer was 2 feet from grade?

- A. 9 gallons
- A. 18 gallons
- A. 24 gallons
- D. 36 gallons

64. How many gallons of a diluted termiticide would be needed to treat the voids of a 45 foot long section of triple-brick wall for a Comprehensive soil treatment on a structure where the depth of the footer was 2 feet from grade?

A. 9 gallons

A. 18 gallons

A. 24 gallons

D. 36 gallons

There are **2** voids in a triple-brick wall.

The application rate for each void is .2 gals./lin. ft.

$$.2 \text{ gals./lin. ft.} + .2 \text{ gals./lin. ft.} = .4 \text{ gals./lin. ft.}$$

The foundation wall is 45 ft. long. To treat it:

$$45' \times .4 \text{ gals./lin. ft.} = 18 \text{ gals.}$$

You never consider the foot of depth from grade to the footer for void treatment.

65. How many gallons of a diluted termiticide would be needed to treat the voids of a 45 foot long section of double-brick wall for a Comprehensive soil treatment on a structure where the depth of the footer was 1 foot from grade?

- A. 9 gallons
- A. 18 gallons
- A. 24 gallons
- D. 36 gallons

65. How many gallons of a diluted termiticide would be needed to treat the voids of a 45 foot long section of double-brick wall for a Comprehensive soil treatment on a structure where the depth of the footer was 1 foot from grade?

A. 9 gallons

A. 18 gallons

A. 24 gallons

D. 36 gallons

There is **one** void in a double-brick wall.

The application rate for each void is .2 gals./lin. ft.

The foundation wall is 45 ft. long. To treat the void:

45' X .2 gals./lin. ft. = 9 gals.

You never consider the foot of depth from grade to the footer for void treatment.

66. How many gallons of a diluted termiticide would be needed to treat the voids of a 70 foot long section of brick veneer, hollow block wall for a Comprehensive soil treatment on a structure where the depth of the footer was 1 foot from grade?

- A. 14 gallons
- A. 22 gallons
- A. 28 gallons
- D. 36 gallons

66. How many gallons of a diluted termiticide would be needed to treat the voids of a 70 foot long section of brick veneer, hollow block wall for a Comprehensive soil treatment on a structure where the depth of the footer was 1 foot from grade?

A. 14 gallons

A. 22 gallons

A. 28 gallons

D. 36 gallons

There are **2** voids in a brick-veneer, hollow block wall.

The application rate for each void is .2 gals./lin. ft.

The application rate for both voids is $2 \times .2$ gals./lin. ft.

$2 \times .2$ gals./lin. ft. = .4 gals./lin. ft.

The foundation wall is 70 ft. long. To treat the voids:

70 lin. ft. \times .4 gals./lin. ft. = 28 gals.

You never consider the foot of depth from grade to the footer for void treatment.

67. How many gallons of a diluted termiticide would be needed to treat the soil adjacent to the outside of an 85 foot long section of hollow block wall for a Comprehensive soil treatment on a structure where the depth of the footer was 2 feet from grade?

- A. 17 gallons
- A. 34 gallons
- A. 48 gallons
- D. 68 gallons

67. How many gallons of a diluted termiticide would be needed to treat the soil adjacent to the outside of an 85 foot long section of hollow block wall for a Comprehensive soil treatment on a structure where the depth of the footer was 2 feet from grade?

A. 17 gallons

A. 34 gallons

A. 48 gallons

D. 68 gallons

The rate of application for treating the soil is:

$$4 \text{ gals./10 lin. ft./ft. depth} = .4 \text{ gals./lin. ft./ft. depth}$$

The footer is 2 feet deep

$$.4 \text{ gals./lin. ft.} \times 2 \text{ ft. depth} = .8 \text{ gals./lin. ft.}$$

To treat the 85' section of wall:

$$.8 \text{ gals./lin. ft.} \times 85 \text{ lin. ft. of wall} = 68 \text{ gallons}$$

68. How many gallons of a diluted termiticide would be needed to treat the soil adjacent to both sides of a 65 foot long section of a single brick wall for a Comprehensive soil treatment on a crawl space structure where the depth of the footer was 1 foot deep?

A. 34 gallons

A. 43 gallons

A. 52 gallons

A. 68 gallons

68. How many gallons of a diluted termiticide would be needed **to treat the soil adjacent to both sides of a 65 foot long section of a single brick wall for a Comprehensive soil treatment on a crawl space structure where the depth of the footer was 1 foot deep?**

A. 34 gallons

A. 43 gallons

A. 52 gallons

A. 68 gallons

The application rate of each side = 4 gals./10 lin. ft./ft. depth
or .4 gals./lin. ft./ft. depth

.4 gals./lin. ft./ft. depth X 1 ft. depth = .4 gals./lin. ft.

There are 2 sides of a foundation wall to be treated.

.4 gals./lin. ft. + .4 gals./lin. ft. = .8 gals./lin. ft.

The soil is to be treated for 65 feet.

.8 gals./lin. ft. X 65 lin. ft. = 52 gallons

69. How many gallons of a diluted termiticide would be needed to treat the soil adjacent to both sides of a 80 foot long section of a triple brick foundation wall

and the voids of the wall for a Comprehensive soil treatment on a supported slab structure where the depth of the footer on the outside was 1 foot deep and on the inside was 3 feet deep?

- A. 144 gallons
- A. 160 gallons
- A. 240 gallons
- D. 320 gallons

69. How many gallons of a diluted termiticide would be needed **to treat the soil adjacent to both sides** of a 80 foot long section of a triple brick foundation wall

and the voids of the wall for a Comprehensive soil treatment on a supported slab structure where the depth of the footer on the outside was 1 foot deep

and on the inside was 3 feet deep?

A. 144 gallons

A. 160 gallons

A. 240 gallons

D. 320 gallons

The application rate to the soil adjacent to a foundation wall is:

4 gals./10 lin. ft./ft. depth from grade to the footer

The soil adjacent to the exterior foundation wall:

.4 gals./lin. ft./1 ft. depth = .4 gals./lin. ft.

The soil adjacent to the interior of the foundation wall:

.4 gals./lin. ft./3 ft. depth = .4 gals./lin. ft. X 3 = 1.2 gals./lin. ft.

There are 2 voids in a triple brick foundation wall:

.2 gals./lin. ft. + .2 gals./lin. ft. = .4 gals. lin. ft.

.4 gals/lin. ft. + 1.2 gals./lin. ft. + .4 gals./lin. ft. = 2.0 gals./lin. ft.

2.0 gals./lin. ft. X 80 lin. ft. = 160 gallons

70. How many gallons of a diluted termiticide would be needed to treat the soil adjacent to the outside of a 155 foot long hollow block foundation wall and the voids of that wall for a Comprehensive soil treatment on a basement slab structure where the depth of the footer on the outside was 6½ feet deep?

- A. 119 gallons
- A. 219 gallons
- A. 279 gallons
- D. 379 gallons

70. How many gallons of a diluted termiticide would be needed to treat the soil adjacent to the outside of a 155 foot long hollow block foundation wall and the voids of that wall for a Comprehensive soil treatment on a basement slab structure where the depth of the footer on the outside was 6½ feet deep?

- The application rate to treat the soil adjacent to the exterior of a foundation wall is: 4 gals./10 lin. ft./ft. depth or:
.4 gals./lin. ft./ft. depth to a maximum of a 4' depth
.4 gals./lin. ft. x 4 ft. depth = 1.6 gals./lin. ft.
- A. 119 gallons
- A. 219 gallons
- A. 279 gallons**
- D. 379 gallons
- The application to treat a void is 2 gals./10 lin. ft. or .2 gals./lin. ft.
.2 gals./lin. ft. X 1 void = .2 gals./lin. ft.
- The total application rate along the wall is:
1.6 gals./lin. ft. + .2 gals./lin. ft. = 1.8 gals./lin. ft.
- To treat the 155 lin. ft. wall:
1.8 gals./lin. ft. X 155 lin. ft. = 279 gallons

71. Termites are social insects that live in colonies that cooperate in raising their young and share their resources (food, water, etc.).

A. True

A. False

71. Termites are social insects that live in colonies that cooperate in raising their young and share their resources (food, water, etc.).

A. True

A. False

72. Termites, like ants, have a colony structure where the majority of members are females concentrated in a single, centralized, immobile nest from which workers forage in search of food and water.

A. True

A. False

72. Termites, like ants, have a colony structure where the majority of members are females concentrated in a single, centralized, immobile nest from which workers forage in search of food and water.

A. True

A. False

Subterranean termite social groups are composed of both males and females and have a mobile nest site usually located near food, most often some form of dead wood that they excavate and inhabit.

73. This soldier termite secretes a defensive secretion through a fontanelle, a hole that is connected to a gland on the front of its head.

- A. Native subterranean termite (*Reticulitermes spp.*)
- A. Formosan subterranean termite (*Coptotermes formosanus*)
- A. Drywood termite

73. This soldier termite secretes a defensive secretion through a fontanelle, a hole that is connected to a gland on the front of its head.

A. Native subterranean termite (*Reticulitermes spp.*)

A. Formosan subterranean termite (*Coptotermes formosanus*)

A. Drywood termite



74. Subterranean termites communicate by:

- A. Pheromones
- A. Sound
- A. Trophallaxis
- A. All the above

74. Subterranean termites communicate by:

A. Pheromones

A. Sound

A. Trophallaxis

A. All the above

75. Can a subterranean termite worker develop into a soldier?

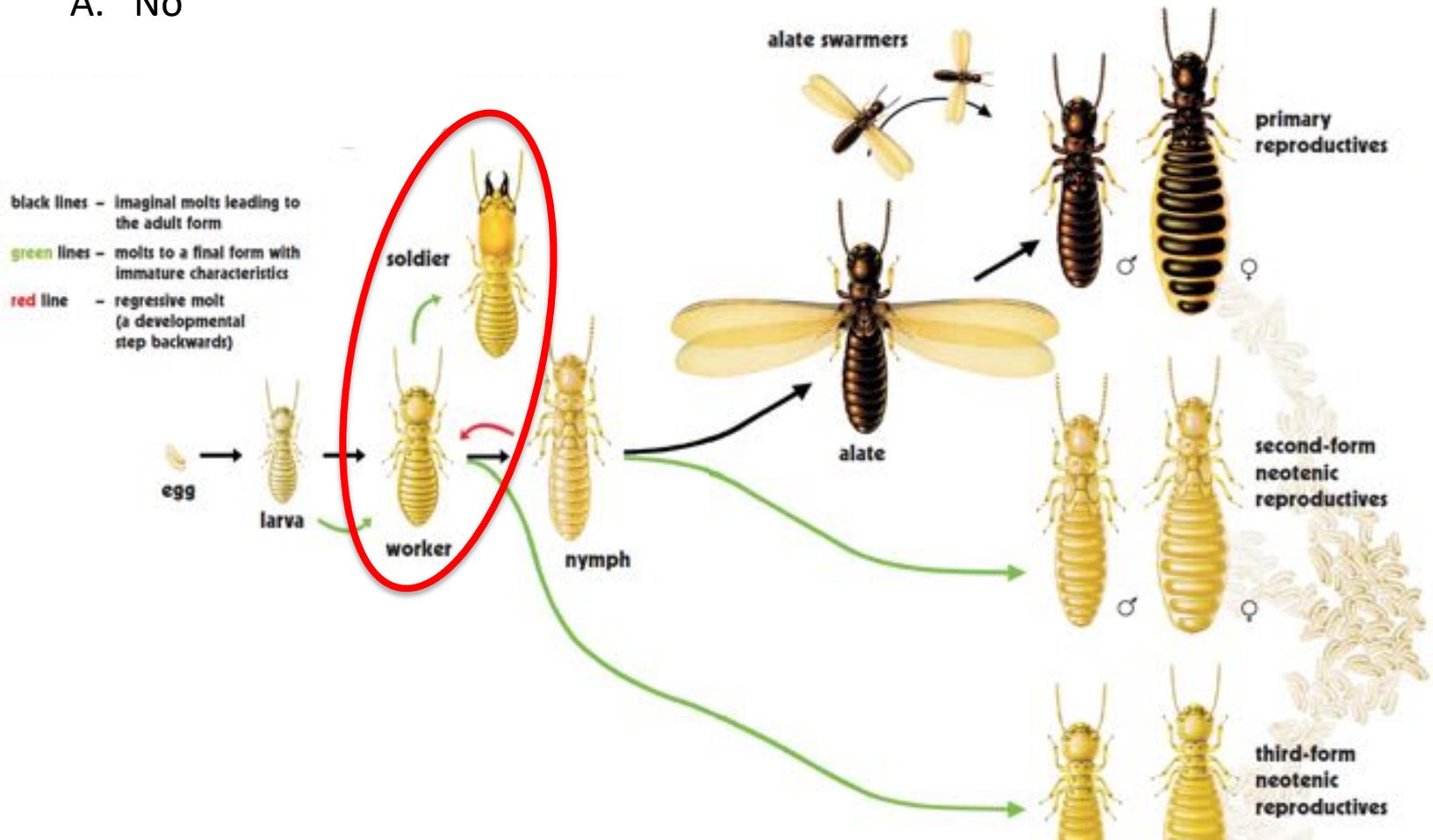
A. Yes

A. No

75. Can a subterranean termite worker develop into a soldier?

A. Yes

A. No



76. Can a subterranean termite soldier develop into a worker?

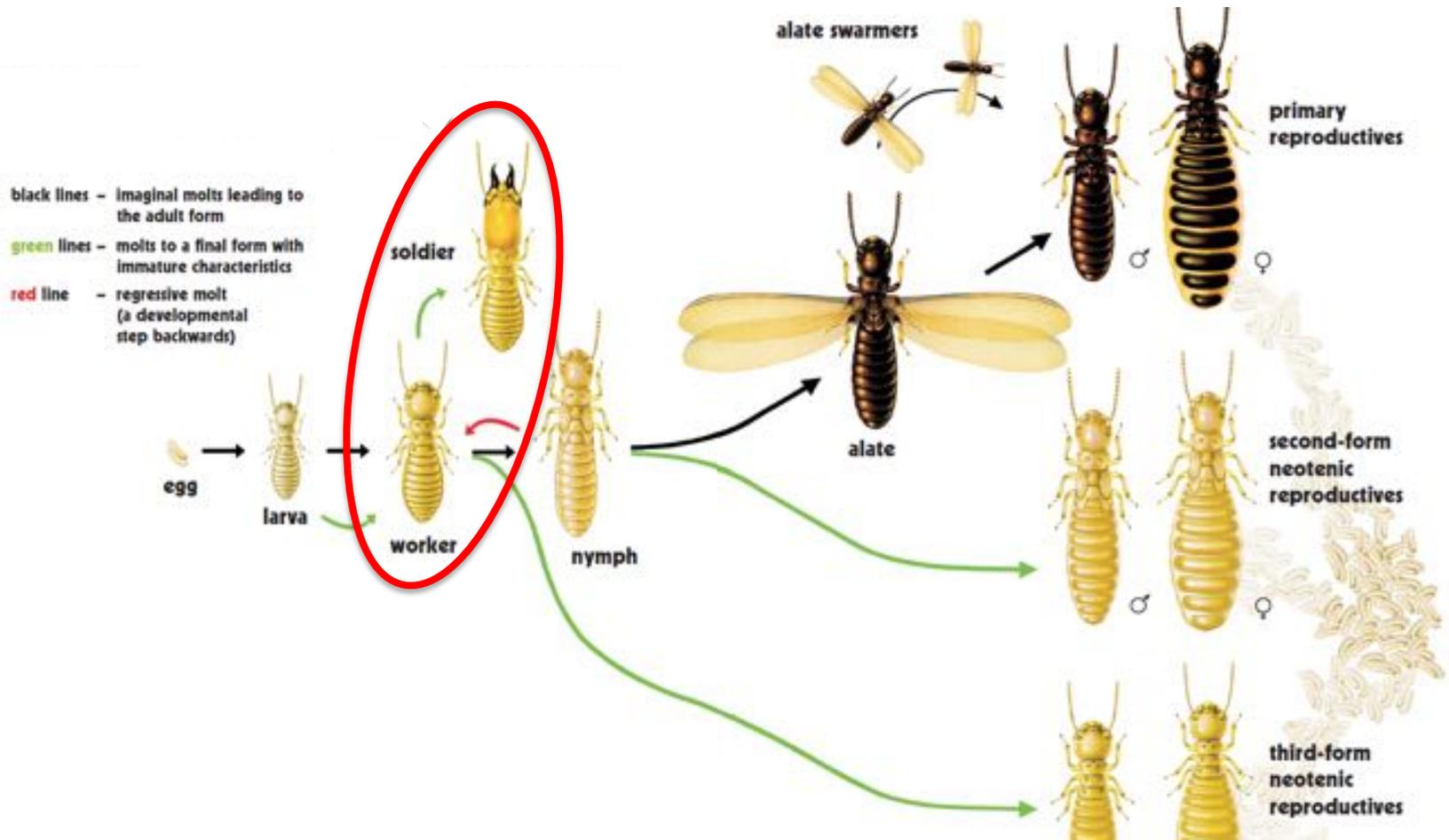
A. Yes

A. No

76. Can a subterranean termite soldier develop into a worker?

A. Yes

A. No...once a worker has turned into a soldier, it can't turn back into a worker



77. Can a subterranean termite worker develop into a Tertiary reproductive?

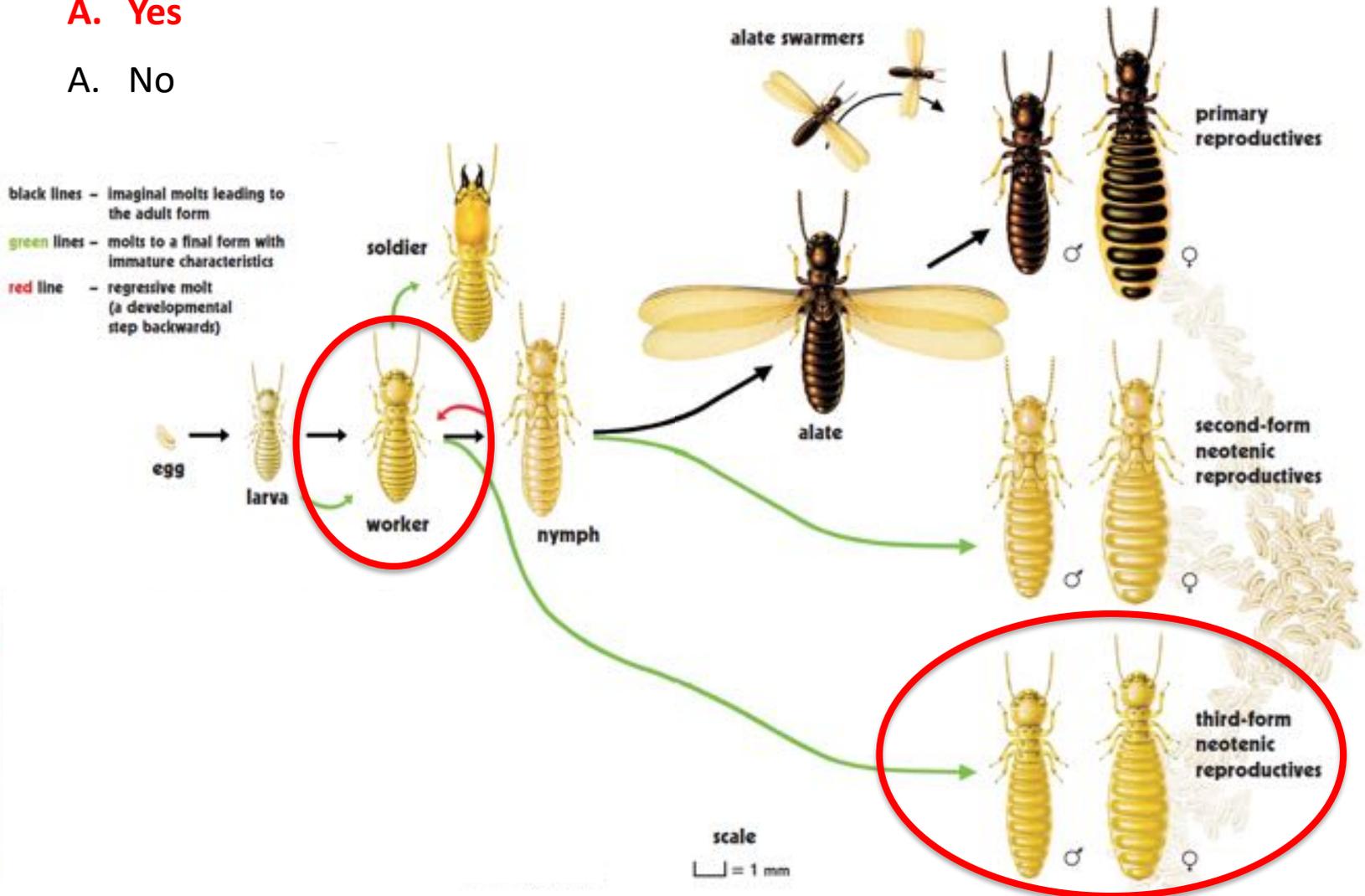
A. Yes

A. No

77. Can a subterranean termite worker develop into a Tertiary reproductive?

A. Yes

A. No



78. Which insects are most closely related to a termite?

- A. Silverfish
- A. Cockroaches
- A. Beetles
- A. Bees

78. Which insects are most closely related to a termite?

A. Silverfish

A. Cockroaches

C. Beetles

C. Bees

79. Which stage/stages and/or caste/castes perform all of the work of a termite colony and do all the damage to structures?

A. Worker

A. Soldier

A. Worker & Soldier

A. Nymph & Worker

A. Nymph & Soldier

79. Which stage/stages and/or caste/castes perform all of the work of a termite colony and do all the damage to structures?

A. Worker

A. Soldier

A. Worker & Soldier

A. Nymph & Worker

A. Nymph & Soldier

80. Termites develop by:

- A. No metamorphosis
- A. Gradual metamorphosis
- A. Incomplete metamorphosis
- A. Complete metamorphosis

80. Termites develop by:

- A. No metamorphosis
- A. Gradual metamorphosis**
- A. Incomplete metamorphosis
- A. Complete metamorphosis

For those taking the Certification exam:

Questions for the certification exam are taken from the Scientific Guide to Pest Control Operations, which uses an older version to classify insect development.

For those taking the Employee Registration exam:

Questions for the Employee Registration exam are taken from the Employee Registration Manual. It uses a newer version to classify insect metamorphosis that entomologists use to classify the type of insect development an insect has.

Now, termites are considered to have **Incomplete metamorphosis**. They are considered **Paurometabolous** insects, living on land in the immature stage.

Hemimetabolous insects, like dragonflies and damselflies, have an immature stage which lives in water, called a naiad.

81. Which caste of the subterranean termite is most often the first to be noticed by the customer?

A. Worker

A. Soldier

A. Primary reproductive

A. Secondary reproductive

81. Which caste of the subterranean termite is most often the first to be noticed by the customer?

A. Worker

A. Soldier

A. Primary reproductive (most often called swarmers)

A. Secondary reproductive

Our customers often overlook mud tunnels of subterranean termites or fecal pellets of drywood termites. Swarm season is when we get the majority of our calls from our customers regarding termites. Swarm season is that time of the year, usually Spring, when termites swarm from their home in large numbers. It's hard to overlook a termite swarm!

82. The Eastern subterranean termite prefers:

- A. Loblolly and slash pine
- A. Sugar maple
- A. Black cherry
- A. Redwood

82. The Eastern subterranean termite prefers:

A. Loblolly and slash pine

A. Sugar maple

A. Black cherry

A. Redwood

83. The Formosan subterranean termite prefers:

- A. Loblolly and slash pine
- A. Sugar maple
- A. Black cherry
- A. Redwood

83. The Formosan subterranean termite prefers:

A. Loblolly and slash pine

A. Sugar maple

A. Black cherry

A. Redwood

84. Subterranean termites are often associated with fungi in their nests, which serves as a source of protein.

A. Yes

A. No

84. Subterranean termites are often associated with fungi in their nests, which serves as a source of protein.

A. Yes

A. No

85. Subterranean termites consume wood at the rate of _____ of their body weight each day.

- A. 1%
- A. 2½%
- A. 5½%
- A. 10%

85. Subterranean termites consume wood at the rate of _____ of their body weight each day.

A. 1%

A. 2½%

A. 5½%

A. 10%

86. May you perform a soil treatment within 100' of a well?

- A. Yes, there are no labels of termiticides that prohibit treatment within 100'. However, the Termidor labels do not permit treatment of the soil within 5' of a well by any means...not even by excavation and treatment of the backfill away from the well.
- B. No, it is illegal to treat soil within 100 feet of a well by any termiticide

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- A. Yes, there are no labels of termiticides that prohibit treatment within 100'. However, the Termidor labels do not permit treatment of the soil within 5' of a well by any means...not even by excavation and treatment of the backfill away from the well.
- B. No, it is illegal to treat soil within 100 feet of a well by any termiticide

87. What is the standard for adequate ventilation for a Comprehensive soil treatment for the control of subterranean termites?

- A. 8" X 16" vents need to be placed at 15' intervals or less along the exterior foundation walls of a crawl space and at least 70% of the soil of the crawl space needs to be covered with a vapor barrier.
- A. 8" X 16" vents need to be placed at 25' intervals or less along the exterior foundation walls of a crawl space and at least 70% of the soil of the crawl space needs to be covered with a vapor barrier.
- A. There is no standard for adequate ventilation for a Comprehensive soil treatment for the control of subterranean termites.

87. What is the standard for adequate ventilation for a Comprehensive soil treatment for the control of subterranean termites?

- A. 8" X 16" vents need to be placed at 15' intervals or less along the exterior foundation walls of a crawl space and at least 70% of the soil of the crawl space needs to be covered with a vapor barrier.
- A. 8" X 16" vents need to be placed at 25' intervals or less along the exterior foundation walls of a crawl space and at least 70% of the soil of the crawl space needs to be covered with a vapor barrier.
- A. There is no standard for adequate ventilation for a Comprehensive soil treatment for the control of subterranean termites.**

88. Do visible cracks in a garage slab need to be treated for a Comprehensive soil treatment of a home?

A. Yes

A. No

A. Only if they are infested

88. Do visible cracks in a garage slab need to be treated for a Comprehensive soil treatment of a home?

A. Yes

A. No

A. Only if they are infested

89. Do visible cracks in a garage slab need to be treated for a Defined soil treatment?

A. Yes

A. No

A. Only if they are infested

89. Do visible cracks in a garage slab need to be treated for a Defined soil treatment?

A. Yes

A. No

A. Only if they are infested

90. Are bath traps required to be treated for Comprehensive soil treatments performed for the control of subterranean termites?

A. Yes

A. No

A. Only if they are infested

90. Are bath traps required to be treated for Comprehensive soil treatments performed for the control of subterranean termites?

A. Yes

A. No

A. Only if they are infested

**91. Are bath traps required to be treated for
Defined soil treatments performed for the
control of subterranean termites?**

A. Yes

A. No

A. Only if they are infested

91. Are bath traps required to be treated for Defined soil treatments performed for the control of subterranean termites?

A. Yes

A. No

A. Only if they are infested

92. An inspector who is a representative of the GA DOA may take soil samples at a structure which has been treated for subterranean termite control:

- A. Any time within 6 months of the treatment
- B. Any time within 1 year of the treatment
- B. Any time within 2 years of the treatment
- B. Any time that the contract is in force and up to 2 years after the contract has cancelled.

92. An inspector who is a representative of the GA DOA may take soil samples at a structure which has been treated for subterranean termite control:

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- B. Any time that the contract is in force and up to 2 years after the contract has cancelled.

93. After soil samples are taken at a structure that was treated for subterranean termite control and the composite sample is analyzed for the proper amount of termiticide, the GA DOA expects it to have 1 ppm of active ingredients per:

- A. 1% of product applied
- A. 0.1% of product applied
- A. 0.01% of product applied
- A. 0.001% of product applied

93. After soil samples are taken at a structure that was treated for subterranean termite control and the composite sample is analyzed for the proper amount of termiticide, the GA DOA expects it to have 1 ppm of active ingredients per:

- A. 1% of product applied
- A. 0.1% of product applied
- A. 0.01% of product applied**
- A. 0.001% of product applied

94. The GA DOA inspector takes soil samples at approximately:

- A. 5 foot intervals if the structure is 300' or less
- A. 10 foot intervals if the structure is 300' or less
- A. 15 foot intervals if the structure is 300' or less
- A. 20 foot intervals if the structure is 300' or less

94. The GA DOA inspector takes soil samples at approximately:

- A. 5 foot intervals if the structure is 300' or less
- A. 10 foot intervals if the structure is 300' or less**
- A. 15 foot intervals if the structure is 300' or less
- A. 20 foot intervals if the structure is 300' or less

95. The GA DOA inspector removes _____ of soil before taking each soil sample.

A. 1"

A. 2"

A. 3"

A. 4"

95. The GA DOA inspector removes _____ of soil before taking each soil sample.

A. 1"

A. 2"

A. 3"

A. 4"

96. The GA DOA inspector takes soil samples that are:

A. $\frac{1}{2}$ " X 4"

A. $\frac{1}{2}$ " X 6"

A. $\frac{3}{4}$ " X 4"

A. $\frac{3}{4}$ " X 6"

96. The GA DOA inspector takes soil samples that are:

A. $\frac{1}{2}$ " X 4"

A. $\frac{1}{2}$ " X 6"

C. $\frac{3}{4}$ " X 4"

D. $\frac{3}{4}$ " X 6"

97. Do the locations of the bait stations that are installed for the control of subterranean termites need to be graphed?

A. Yes

A. No

97. Do the locations of the bait stations that are installed for the control of subterranean termites need to be graphed?

A. Yes

A. No

98. How long are termiticide application records required to be kept by a PCO?

- A. Two years after the date of application.
- A. Five years after the date of application.
- A. As long as the contract is active.
- A. As long as the contract is active and 2 years after the contract has cancelled.

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- A. Two years after the date of application.
- A. Five years after the date of application.
- A. As long as the contract is active.
- A. As long as the contract is active and 2 years after the contract has cancelled.**

99. What are 3 non-chemical standards for installing a baiting system in compliance with the Rules?

- A. At least 6" clearance between wood and soil on the outside of the structure, at least 18" clearance between wood and soil on the inside of the crawl space and adequate ventilation.
- A. At least 6" clearance between wood and soil on the outside of the structure, at least 16" clearance between wood and soil on the inside of the crawl space and no cellulose debris in the crawl space.
- A. At least 6" clearance between wood and soil on the outside of the structure, at least 18" clearance between wood and soil on the inside of the crawl space and no cellulose debris in the crawl space.
- A. At least 8" clearance between wood and soil on the outside of the structure, at least 18" clearance between wood and soil on the inside of the crawl space and no cellulose debris in the crawl space.

99. What are 3 non-chemical standards for installing a baiting system in compliance with the Rules?

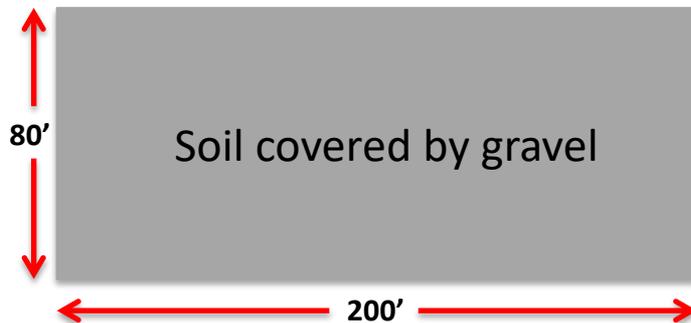
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- A. At least 6" clearance between wood and soil on the outside of the structure, at least 18" clearance between wood and soil on the inside of the crawl space and no cellulose debris in the crawl space.**
- A. At least 8" clearance between wood and soil on the outside of the structure, at least 18" clearance between wood and soil on the inside of the crawl space and no cellulose debris in the crawl space.

100. What is the rate of application to treat the soil that is covered with gravel before a slab is poured on a residential pretreat?

- A. One gallon per 10 square feet of soil
- A. One gallon per 15 square feet of soil
- A. One and one-half gallons per 10 linear feet of soil
- A. One and one-half gallons per 10 square feet of soil

100. What is the rate of application to treat the soil that is covered with gravel before a slab is poured on a residential pretreat?

- A. One gallon per 10 square feet of soil
- A. One gallon per 15 square feet of soil
- A. One and one-half gallons per 10 linear feet of soil
- A. One and one-half gallons per 10 square feet of soil (0.15 gals./sq. ft.)**



$$200' \times 80' = 16,000 \text{ sq. ft.}$$

$$\begin{array}{r} 16,000 \text{ sq. ft.} \\ \times \underline{0.15 \text{ gals./sq. ft.}} \\ \hline 2,400 \text{ gals.} \end{array}$$

How did you do?

If you answered 80 or more of the 100 questions with the correct answer, **you did well...**and scored 80% or better.

70% passes most tests!

If you answered less than 80 of the 100 questions with the correct answer, you may need to review this power point presentation a few more times to “brush-up” on termites and their control methods...but, I’ll bet you learned a few new things about termites today.