FOREST HEALTH
PROGRAM
GEORGIA FORESTRY
COMMISSION

Ips Engraver Beetle Outbreak 2016

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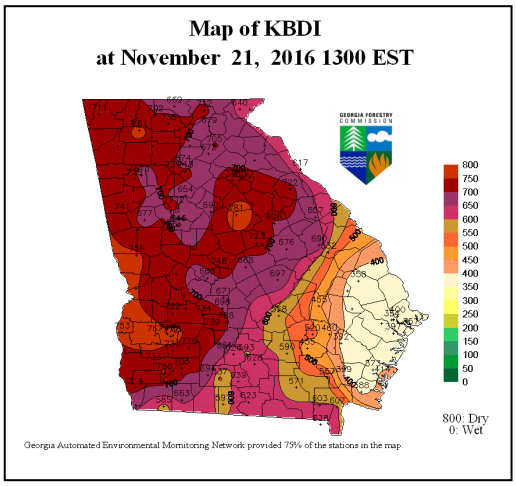

The year 2016 has proven to be one that none of us can remember having such extremes. We have gone from hurricane damage near the coast to severe fire damage in north Georgia, and across the majority of the state we are now seeing extreme drought. The Drought Index Map tells the story and all of our woods are suffering.

The drought is not only causing fires, but we are seeing widespread damage to the overall forest health in Georgia. The smoke and fire is easily seen, but drought is causing long-term damage to hardwoods and pines in the form of root damage and insect outbreaks. Immediate damage from this drought is evidenced by dying tree tops and brown leaves dropping, but long-term damage to root systems is imminent. This root damage will not be immediate, but we will see trees dying over the next two to three years, due to increased insect damage and an overall decrease in stand health.

We received a marked increase in calls about **Pine Bark Beetle** across Georgia in October and November, and we saw dramatic increase in Ips Engraver Beetles infestations in the heavily drought stressed trees in western and northern Georgia. In central Georgia, on the Oconee National Forest, we looked at more than 300 individual Ips spots with some spots as large as five to ten acres. All of these spots are attributed to severe drought and landowners need sound management advice. *A great publication was produced by the **Southern Regional Extension Forestry** on Ips Bark Beetles; please follow the link:* http://www.sref.info/resources/publications/ips-bark-beetles-in-the-southeastern-u.s.

Across the Southeast there are four species of Ips bark beetles (one large, two mediums, and a small Ips.) Normally Ips engraver beetles are identified by their "spines" and what appears to be a "scooped out" depression at the rear end of the beetle. These beetles are normally found in stressed trees, logging debris, or damaged branches and generally infest only small groups of trees. Signs and symptoms of Ips infestations are discolored crowns, dying and dead branches, sloughing bark, pitch tubes (normally a red color) coming through the middle of the bark plate, or red "sawdust" on top of the bark plate. In some cases you will find "frass" and sawdust in spider webs around the base of the tree. Galleries, under the bark, are typically vertical and resemble "I," "H," or "Y" shapes. Ips engraver beetles carry a fungus called "blue-stain" that spreads into the wood and blocks water flow which hastens the death of the tree. In severe drought, pitch tubes from Ips infestation may not be

seen due to the lack of moisture inside the tree. Ips populations can increase rapidly under warm weather conditions, but develop slowly when temperatures drop below 59°.

Sound management practices such as thinning are normally key to maintaining stand vigor and health in the prevention of bark beetle infestations, but under severe drought conditions this is not the case.

- Pine trees are most susceptible to attack from Ips during drought conditions, so thinning during these times should be avoided if possible.

- A few insecticides are labeled for Ips bark beetles (e.g. carbaryl and permethrin); however, spraying trees as a preventative treatment with insecticide is not practical, as these chemicals must be applied repeatedly, and the entire tree, including the upper portions of the crown, must be sprayed by a certified applicator. These treatments are normally not effective and should be avoided. Avoid the treatment of yard trees with contact or topical insecticides. Again, to be effective, these treatments must include the upper portions of the crown and the entire tree.

- Systemic insecticides (e.g. emamectin benzoate, sold as Tree-äge®) have shown effectiveness in controlling bark beetles, but these require injection directly into the trunk of the tree. For high-value trees, insecticide use is recommended only as a preventive measure to control Ips beetle damage before infestation occurs. Once symptoms are observed, the tree cannot be saved by insecticides.

- Stand-level treatments are not cost effective for most nonindustrial private landowners.

Please contact your local forester or Forest Health specialist if you need help with information to provide to your landowners; we are more than willing to help.

Again, the ***Southern Regional Extension Forestry*** produced a great publication on Ips Bark Beetles, please follow the link: http://www.sref.info/resources/publications/ips-bark-beetles-in-the-southeastern-u.s.

Thank you for the great job that each of you do.

Call us if we can help:

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