Available on the net at:
http://sdda.sd.gov/conservation-forestry/tree-pest-alerts/

Any treatment recommendations, including those identifying specific pesticides, are for the convenience of the reader. Pesticides mentioned in this publication are generally those that are most commonly available to the public in South Dakota and the inclusion of a product shall not be taken as an endorsement or the exclusion a criticism regarding effectiveness. Please read and follow all label instructions and the label is the final authority for a product’s use on a particular pest or plant. Products requiring a commercial pesticide license are occasionally mentioned if there are limited options available. These products will be identified as such but it is the reader’s responsibility to determine if they can legally apply any product identified in this publication.

Timely topics

Plant development................................................................................................. 2
What pests to treat now
  apple scab................................................................. 2
  tent caterpillars............................................................ 2
  Zimmerman pine moth.................................................... 3
What pests to treat in another week or so
  Clearwing ash borer..................................................... 3
  Diplodia tip blight.......................................................... 3
E-samples
  Cedartree borers............................................................................. 3
  Drought-stressed spruce......................................................... 4
  People as pests........................................................................... 4
Samples received
  Gregory County (drought injury on spruce)................................. 4
  Gregory County (decline of cedars)........................................... 5
  Miner County (dying spruce).................................................. 5
Timely Topics

Plant development. We are still way behind in plant development from most years. This year the forsythias are blooming in Brookings; about three weeks later than normal. While other parts of the state are ahead of this, the forsythias bloomed in Yankton a week ago, every place is behind from what they normally would be.

Treatments now

Apple scab control first application should be on now to avoid discolored leaves and fruit and premature foliage drop later in the season. I usually begin receiving calls about apple scab in mid-July when it is far too late to do much about it. The young leaves are most susceptible within the first five days of unfolding so the most effective control is early control. Captan is the most common fungicide homeowners can use and can be used on crabapples and apples. Fungicides labeled for apple scab and containing chlorothalonil or propriconazole may be used but only on ornamental crabapples, not trees in which the fruit will be harvested. First application should be on now, as the foliage buds are swelling or open and this application should be followed by 2 or 3 more spaced 10 days to two weeks apart.

Tent caterpillars are beginning to hatch now so if you have not removed the egg mass from the trees you are probably going to have to spray. The nests, found in the branch crotches of the trees are just beginning to form and the larvae are very small, less than ¼-inch. There are two means of control right now. First, if the nests can be torn open that exposes the young larvae to predators and parasites and they can significantly reduce the population. Second, now is also the time to begin treatments with an insecticide and there are numerous ones available that are labeled for tent caterpillars. Too often people wait to spray until the larvae are fully grown and almost finished feeding and while this may be fun, we refer to this as ‘revenge’ spraying as it is too late to do much for the tree, it just kills insects.
Zimmerman pine moth, two of the three species in this complex will begin laying eggs on new trees and previously infested ones. Infested trees typically have masses of reddish pitch near branch attachments. Infested trees will also often have branches breaking off at the trunk. Treat the tree with an insecticide labeled for Zimmerman pine moth. There are a number of products containing permethrin as the active ingredient.

Treatment in another week….

Clearwing ash borer treatment with an insecticide containing permethrin as an active ingredient can begin in another week. The bark must be sprayed to protect the tree as the insecticide will kill the adults as they are walking on the bark while laying eggs. The insecticide will also kill the newly hatched larvae before they burrow into the wood. Systemic treatments are generally ineffective so injecting a pesticide or pouring one around the soil are not practical means of managing this particular borer. The adults are usually out flying about a week or so after Vanhouttee spireas begin to bloom and the shrub should begin flowering in another week or so.

Diplodia tip blight first application of a fungicide should be applied soon. Tip blight is probably the most common disease of pines, particularly Austrian pine. Symptoms in early summer are the new needles becoming brown and stunted. Twigs may be infected and become stunted and deformed. The treatment is a fungicide containing thiophanate-methyl, propriconazole or chlorothalonil (labeled for control of this disease) just before the buds sheaths have opened and should be happening soon. Timing is critical, once the bud sheaths have opened and the candle begins to form, it’s a little late to begin the first application and this is the one that provides most of the protection.

E-samples

More cedar beetles…Last week I covered the problem we are seeing with the cedar bark beetles infesting drought-stressed junipers in the central and western parts of the state. This week we had a picture sent of another beetle associated
with eastern redcedar. This time the beetles were found coming from dried wood that was being turned to make bowls. This is the cedartree borer (*Semanotus ligneus*) a common borer of dying and recently dead juniper trees. The larvae can survive and continue to develop in cut wood that is air-dried so people are often surprised to find sawdust, exit holes and these beetles coming out of their rustic cedar furniture and logs. The adults will not lay eggs on the sawn wood, regardless of whether it is varnished or not, so they just become a temporary nuisance rather than a continual problem.

**More drought-stressed spruce**...The calls and pictures just keep coming in about discolored and declining spruce trees. These trees typically have most of the older needles missing, the new growth, both the shoot and the needles, are stunted and the foliage is red to brown. Trees that have these symptoms probably are not going to survive and it may be best to remove and replant. The drought for the past year or so has not been kind to spruce since these trees are best adapted to cool, moist locations.

Just to show everyone people can be a pest; look at this picture of a chained tree provided by Nathan, one of the service foresters for the South Dakota Department of Agriculture. The recent ice storm left a lot of trees with split trunks and people have called wanting to know how to repair these trees. Most of the suggestions I have heard involve wrapping something *around* the tree such as a chain (as apparently was done with this tree a number of years ago) or strap. While these will hold the tree together, they will eventually strangle and kill the tree. It is far better to hire a profession tree company to come out and install rods *through* the trunk to provide support.

**Samples received**

**Gregory County**

*What is killing these spruce (two separate samples), drought or disease?*

This, as with the Turner County sample below, certainly appears to be drought-related. The growth from last year was stunted and the growing conditions were not favorable for spruce in much of the state last year, particularly south of I-90.
Gregory County

What is killing these cedars?

There are eight trees in a cluster, but the rest of the row looks fine.

I suspect there is more going on with these trees than can be observed from the sample. The trees have Kabatina twig blight, one of the most common fungal diseases of junipers. I see this in belts and the typical symptoms are yellowing tips occurring in late fall or early spring. The disease rarely kills the trees but can result in stunted, more open, evergreens. However, this disease usually goes right down a row so I wonder if this “patch” is being attacked by the cedar bark beetle (see the last issue of the Update). I have also seen small patches of cedars in a row that are being girdled by the fabric. This problem usually occurs when the trees are about 8 to 12 years old. Of course, I can only diagnose what is sent and without knowing more about the planting I cannot say for certain what is killing these trees but you might want to look at the trunk and the trunk flare for evidence of borers or girdling.

Miner County

What is killing this spruce tree?

This may not be drought-related. The growth appears normal from past year but it suddenly died. This is a little unusual but what caught my attention was a deciduous tree next to it also died. I will arrange a site visit and look at the trees a little closer.

Turner County

What is killing this spruce tree?

Another spruce sample! The symptoms the appeared on the sample were stunted shoots and needles. The shoot growth in 2011 was about 6 inches whereas the growth in 2012 was only about 2 inches. While stunted growth can be due to any number of stresses that affect the roots, drought was the common stress agent last year and most likely the combination of too little water and too much heat caused the decline.