Editor's Overview

I can’t help but think spring is here on this beautiful sunny morning ... but I’m sure there’s a bit of winter left out there for us.

We’re continuing to present our survey results from the past season. Bob has written an update on Sirococcus and the rating system used to assess a stand (pg 2 and 3). Mike has included an update on the ongoing search for hemlock stands damaged by the pale winged grey in the western region (pg 4). Jeff attended the National Meeting on West Nile Virus and Other Non-Enteric Zoonotic Diseases in Montreal, PQ and has provided a few notes from that meeting (pg 5). In his column, Eric warns us to expect the unexpected this year when it comes to insects (pg 4). Eric also provides an update from Antland on page 5. Christmas Tree Producers, look for the Balsam Woolly Adelgid Population Presence Procedure (pg 6).

‘Til next issue

Jacqui Gordon
Editor

North American Occupational Health & Safety Week
April 30 to May 6 2006

This year’s theme is Review. Refresh. Revitalize. The theme is designed to remind us that safety performance begins to slide backward if a safety program is not reviewed, renewed, or revitalized regularly.

We will be marking NAOSH Week at Shubie and we encourage everyone to find out about events in your area and make time to participate.

Say What and Quotes . . .

Junk is something you throw away three weeks before you need it. -Unk.

By the time you find greener pastures, you can’t climb the fence! -Unk.

I have claustrophobia combined with fear of success, so I completely fell apart when I did a really good job painting the inside of my closet. -Bob Thaves (Frank & Ernest)

Words of Wisdom ...

When your dad is mad and asks you, “Do I look stupid?”, Don’t answer. -Hannah, age 9

Never tell your Mom her diet’s not working. -Michael, age 14

Stay away from prunes. -Randy, age 9

Don’t pull Dad’s finger when he tells you to. -Emily, age 10

If you want a kitten, start out by asking for a horse. -Naomi, age 15

Felt-tip markers are not good to use as lipstick. -Lauren, age 9

Don’t pick on your sister when she’s holding a baseball bat. -Joel, age 10

Never try to baptize a cat. -Eileen, age 8
Project Updates

Sirococcus Shoot Blight Update
Bob Guscott

Sirococcus shoot blight has become an issue again in red pine plantations in the Trafalgar Burn and Garden of Eden areas. The wet conditions in late spring 2004, led to a dramatic increase in the number of plantations exhibiting red flagging. Although conditions improved in 2005, the extent and severity of affected red pine plantations are concerns.

Sirococcus has been present in the Trafalgar/Garden of Eden area since at least 1986. Control efforts in the late 80’s and mid 90’s were unsuccessful in eradicating the fungus. However, the removal of affected plantations likely delayed or lessened the eventual progression of this forest disease.

Because the Trafalgar/Garden of Eden area are situated inland, away from moist, foggy coastal areas (where many red pine plantations have been completely destroyed by Sirococcus) it is not clear what the long-range prospects are for these plantations. Another concern is whether thinning these plantations can lead to a quicker progression of the disease throughout the plantation.

In an effort to try and quantify the Sirococcus level in a red pine tree or a stand, we have developed a 9-Class Sirococcus rating system. This has been adapted from Frank Hawksworth’s 6-Class Mistletoe Rating System. It gives us an overall rating for a tree or a stand, but also allows us to track the progression of the disease from the bottom through the middle to the top of the crown.

Figure 1. Map showing Sirococcus defoliation in the Trafalgar Burn area, 2005.
The information on this map may have come from a variety of government and non government sources and is subject to change without notice. The Nova Scotia department of Natural Resources accepts no liability for errors, deficiencies, or faults on this map.
The 9-Class Sirococcus Rating System
(adapted from Hawksworth’s 6-Class Mistletoe Rating System by Bob Guscott October 2005)

1. Divide live crown into thirds

2. Rate each third separately, using the following guidelines:

<table>
<thead>
<tr>
<th>Rating</th>
<th>Qualification</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>no visible shoots infected</td>
</tr>
<tr>
<td>1</td>
<td>1 - 29 shoots infected</td>
</tr>
<tr>
<td>2</td>
<td>30 - 69 shoots infected</td>
</tr>
<tr>
<td>3</td>
<td>70+ shoots infected</td>
</tr>
</tbody>
</table>

3. Add the ratings for each third to get the tree’s overall rating. (Eg. top 1/3 = 0, middle 1/3 = 1, bottom 1/3 = 1. Total = 2)

Figure 2. Dividing a red pine into thirds to rate it using the Sirococcus Rating System.

Figure 3. Map showing Sirococcus defoliation in Garden of Eden area, 2005.

The information on this map may have come from a variety of government and non government sources and is subject to change without notice. The Nova Scotia department of Natural Resources accepts no liability for errors, deficiencies, or faults on this map.
The Provincial Entomologist’s Notes and News

This has been an odd winter with more mild days than normal cold ones, outside of a few days of cold weather at the end of February and the beginning of March. Needless to say, the insects aren’t going to let this slide by without taking advantage of it.

We are in for an interesting year, starting this spring with the eternal struggle between man and insects. I am getting calls already regarding ants in houses, along with the always present cluster flies and drain midges.

I expect an active year for ants and wasps because mild winter weather conditions have enhanced their survival. The freezing and thawing have stressed many urban trees especially those planted in poor locations. There will most likely be a build up of those insects that defoliate trees, such as cankerworms. Gypsy moths should be starting their next cycle of population build-up this summer in the western region.

The native spruce beetle populations are going to increase causing major damage to spruce trees. The lack of frost in the ground for most of the winter has allowed for a lot of tree rocking. This damages the root systems leading to weakened trees which are more susceptible to beetle attack.

Watch for the whitemarked tussock moth this spring and summer. There have been a number of reports from the field indicating that a serious population build-up is occurring. If this population increases continually this summer, it means we are heading for another significant outbreak of this insect. These observations are disturbing as the next outbreak isn’t expected until at least ten years from now. Christmas tree producers in particular, must be extra watchful in their tree lots this year.

The best advice I can give to all those who own trees, woodlots, or plantations is to expect the unexpected and prepare for the worst. If the worst doesn’t happen then don’t worry about it, but trust me on the unexpected.

’Til next time,

Eric

Eric Georgeson, Provincial Entomologist
**Bits and Pieces**

**Antland Report:**
**Ant Supercolony Dominates Europe**
Eric Georgeson

I thought we had a problem with ants until I recently read of an ant supercolony found in southern Europe. It stretches for more than 6000 kilometers. This is a complex of cooperating ant nests reaching from the Atlantic Coast to Italy. This supercolony is made up of one species of ant called the Argentine Ant. It is thought to have been accidentally introduced into Spain about 80 years ago. Over time, it has developed into the largest ant colony yet discovered.

Normally ant colonies, even of the same species, will fight among themselves for resources. Ants of a supercolony can recognize each other and will cooperate with each other. In other words, you can take an ant from a nest in Spain and drop her on a nest in Italy, and this worker ant will be accepted by the colony ... no questions asked. Keep in mind that ants from different supercolonies will fight against each other. This is what controls them in South America. However, in Europe, there is only one colony. The ability of these ants to recognize and work with each other allowed them to overcome the native ant species and keep increasing in distribution.


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**West Nile, Lyme, What’s Next?**
Jeff Ogden

First it was West Nile Virus, then Lyme Disease, what may be next? Research has demonstrated that our risk of encountering WNV in Nova Scotia remains extremely low, in fact some believe virtually impossible, due to our cooler climate and weather trends. Although black-legged tick populations appear to be on the rise and moving around a bit, the risk of encountering a Lyme positive tick is also quite low outside specific regions of the province. But what other “nasties” could there be out there?

In February 2006, I attended the National Meeting on West Nile Virus and other Non-Enteric Zoonotic Diseases in Montreal, PQ. At this meeting, WNV and Lyme Disease were discussed at length, including national stats, provincial risks, and government strategies. What interested me most were all of the other potential diseases that are carried by arthropods, such as ticks and mosquitoes. Two of particular interest are: 1. Snowshoe Hare Encephalitis, spread by spring species of mosquitoes, and 2. Tularemia, usually spread by contact with infected food or water or by handling infected animals, but also through the bite of infected dog ticks and deer flies.

The risks of encountering these and other arthropod born diseases are currently extremely uncommon in NS, continued use of repellents and proper dress greatly increases your chances of enjoying the outdoors safely.
Balsam Woolly Adelgid Population Presence in True Fir Trees
Mike LeBlanc and Keith Moore

This is a good project to start in March to give you an idea of what you will be dealing within the growing season. This procedure will not tell you how many insects you have but will indicate if they are present.

1). Randomly select three trees per location, and collect one branch per tree, about 12 - 18 inches long (30 - 45 cm), from the middle of the tree.
   (Choose branches that are only slightly gouted!)

2). Stand the branches in a bucket containing 3 - 4 inches (7 - 10 cm) of water.

3). Place in a warm, heated area; preferably in front of a sunny window.

4). Starting approximately five days later, begin to look for white, woolly masses at the bases of buds, under bark scales, or at the branch nodes. These woolly masses grow to about 1/16 in (2 mm) in size; a hand lens or magnifying glass will aid this procedure.

This will give you a confirmation as to whether or not a population of adelgids exists on your trees. If you observe some woolly masses on the branches, watch for damage symptoms on all the trees in your lot. This will indicate to you that damage control may have to be implemented such as sanitation (tree removal), or if populations are high enough, spraying may be considered.

Figure. 4. Set-up for determining the presence of the balsam woolly adelgid. Note the enlargement of the white wool below the bud.