

Down the Garden Path

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YARD

Pesticides Applied to Dense Turf Pose Little Risk to Environment

Zac Reicher, Turfgrass Extension Specialist

Although research has shown that pesticide use on dense turf poses little risk to our environment, it still makes sense to minimize the pesticides we use on lawns. Research has shown that the majority of pesticides applied to turf get trapped in the foliage, and thatch. The little pesticide that gets past this area is quickly bound up in the highly organic rootzone and then broken down quickly by the intense microbial activity associated with turf rootzones. Therefore, the most effective way to minimize pesticide usage on your lawn is to maintain a thick, healthy lawn:

- Mow frequently and at the high end of the optimum range of mowing heights for your species. If you have primarily Kentucky bluegrass, fine fescue, or perennial ryegrass, 3 or 3.5 inches is the proper mowing height. Tall fescue should be mowed at 3.5 inches or higher.
- Fertilize primarily in the fall with a September application and then another application just before or just after final mowing of the year.
- Irrigate deep and infrequently to encourage turfgrass species over shallow rooted weeds.

Even though you are performing all of these practices on your lawn, you may occasionally still need pesticides in isolated areas. Efficient and effective use of pesticides includes following the label closely, proper calibration, timing of application, and selection of the pesticide. Rather than applying to the entire lawn, just spot treat the problem areas with pesticides.

Applying broadleaf herbicides in the fall only to visible weeds will dramatically reduce your herbicide use. Apply preemergence annual grass herbicides in the early spring only to areas that you have had crabgrass before, such as next to walks and driveways. Do not apply preventative white grub treatments unless you have had white grub problems in the past, and follow the specific label instructions if you must apply white grub treatments.

For more information, Purdue's Extension publications on turf are available on-line at <<http://www.agry.purdue.edu/turf/>> or from your local county Cooperative Extension Service Office or by calling Purdue's toll-free Extension information line at 1-888-EXT-INFO (1-888-398-4636). ☺



THE GRAPE VINE

Grubs and New Grub Control Products

Timothy J. Gibb, Extension Entomologist

The availability of new turfgrass chemicals which boast 'season long' control have brought with them many questions about how to use them most effectively. Three new products can be used in a 'preventative' manner, meaning that they can be applied before grubs hatch and begin damaging the turfgrass. These include Mach 2, an insect growth regulator, Merit and (soon to be released) Meridian.

Each of these products has been shown to be very environmentally friendly. Each also has been shown to be very safe to use around homes, people and pets. These factors have allowed EPA to register these products for homeowner use, which makes them easily accessible.

However, if history has taught us anything, it is that regardless of how safe or effective a chemical pesticide appears to be, it should always be used only when and where needed. Over-application of any chemical brings with it some negative consequences. For that reason, we should always use and recommend that these chemicals be used in an Integrated Pest Management (IPM) program. This simply means that the chemicals should be chosen specifically for the job at hand and for the insect pest. They should not be used as an 'insurance' against possible insect problems or applied indiscriminately over the whole lawn.

Studies as Purdue University have shown that when using these products as grub control, they should be applied as close to the egg hatch date as possible. Eggs hatch at the end of July or the early part of August throughout most of the state. Applying these chemicals at this time, with plenty of irrigation, markedly increases the effectiveness of the chemical.

Note also that mid summer is NOT the best time of year to apply fertilizers to the lawn. For that reason purchasing grub control products that use fertilizer as a carrier is not recommended. Rather, apply grub control products when they were designed to be used, and use fertilizers when they are most effective.

Another question that is often asked concerns the question, "how do I know if I need to treat for grubs?". I love to hear this question because it means that people are thinking about whether or not they really need the application, rather than just going out and treating a lawn for grubs whether or not it is needed.

Research has shown that over 75% of grub treatments on lawns is unneeded. This is a startling fact and one that must make us all stop and consider not only the wasted chemical and cost of application, but also what we are doing to our environment. Grubs tend to return to favorite spots year after year. A history of grub damage in a certain area of turfgrass, is reason enough to treat that area this season. Seldom do grubs infest an entire lawn. They tend to infest in spots or localized areas. This should be the way that grub control chemicals are used as well. Spot treatments in areas where a grub history leads one to suspect that grubs will be there again, is good IPM practice.

Our research has also shown that there is more 'curative' control with each of these products, than we had originally anticipated. This means that applying

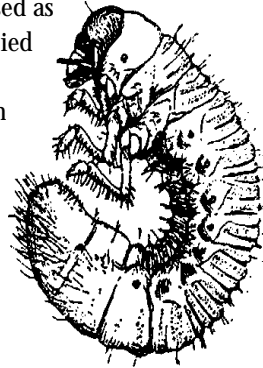
them to areas where grubs have hatched and are feeding is also effective. If we keep an eye on the turfgrass and look under the thatch on occasion, especially during early August, we can often catch those areas that require a treatment before the damage becomes irreversible. This is still plenty of time to treat and expect good control. Always remember that close monitoring and common sense are the real keys to grub control on lawns. ☺

OVER THE BACK FENCE

Q: Now is the time of year when I start to see all kinds of advertisements for grass seed with characteristics that sounds good to be true. What are your thoughts on these "miracle grasses"?

A: These amazing new and/or improved grasses for lawns usually boast excellent year around performance, and reduced mowing, irrigation, and fertilization requirements. Though there has been tremendous genetic improvement in our turfgrasses, there are currently no miracle grasses that can meet these claims. Nor do we expect this to happen in the future.

As a rule of thumb, you should avoid purchasing plant material out of national circulars like this because it is very likely that the plant material advertised will not survive in your particular region of the country. You are much better off buying quality seed adapted to your region locally from a reputable seed house. -- Zac Reicher ☺



Q: We just built new home and we want to seed our lawn. What would you recommend?

A: If you must seed, do it now. Late summer is the best time to seed, but sometimes turf must be seeded in the spring. The following points should help improve the success of spring seedings:

1. Seed as soon as possible (now is not too early) so the seed is in the ground and ready to germinate as soon as the soil temperatures rise.

2. Improve the seed-soil contact by raking or disturbing the soil before seeding. After seeding, a light raking will further mix the seed and soil or a light rolling will push the seed into better contact with soil.

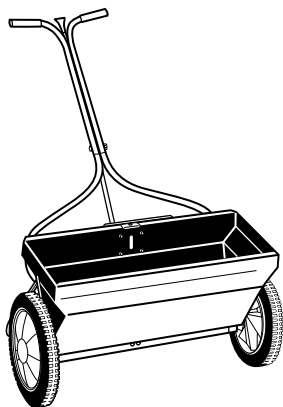
3. Water lightly to keep the seed bed moist as soil temperatures warm to 50 degrees Fahrenheit and the seed starts to germinate.

4. Avoid any herbicide applications to the seeded areas until the seedlings are established and mowed at least 3 or 4 times (this might be May or later depending on the weather).

5. Since the seedlings will not develop a good root system until next fall, keep the newly seeded areas well-watered all summer.

6. Much more information is available in *AY-20: Seeding a Turf Area in the Spring*, available online at <http://www.agry.purdue.edu/turf/> or from your local county Cooperative Extension Service Office or by calling Purdue's toll-free Extension information line at 1-888-EXT-INFO (1-888-398-4636).

-- Zac Reicher ☺



GARDEN

Treated lumber or alternatives for gardeners?

B . Rosie Lerner, *Extension Consumer Horticulturist*

Gardening in raised beds can be just the answer for would-be gardeners who would love to grow their own vegetables and flowers, but lack the space or physical ability for a traditional garden. However, recent controversy regarding chemical wood preservation treatments has left many gardeners wondering about the safety of treated lumber.

Certainly any discussion of potential toxicity must be prefaced with the knowledge that there can be great variability in sensitivity to pesticides in the environment. Some folks can react to very low levels of a chemical that most other people don't react to at all. Also, keep in mind that toxicity is relative to dose and exposure. But for the bulk of the population, pressure-treated lumber appears to be a reasonably safe choice for gardening structures.

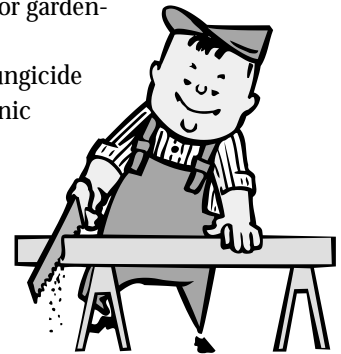
Pressure-treated lumber is saturated with a fungicide made from salts of chromium, copper, and arsenic (CCA). All three of these chemicals occur naturally in soils because they are part of the parent rock material. While some of the chemical components are potentially toxic to humans, the fungicide is applied to the wood under high pressure so that there is little movement of the fungicide out of the wood.

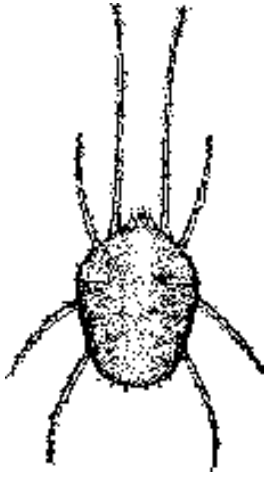
However, there clearly is some leaching possible. Fortunately, the chemicals become bound to soil particles except in very acid soils (pH 4.0 or lower). Therefore, even when leaching does occur, the chemicals are not likely to be taken up by plants.

Treated lumber is not without some risk. The EPA and the manufacturers of treated lumber advise that:

1. Treated wood should only be used for outdoor structures.
2. A dust-mask should be used when cutting treated wood.
3. Scraps of treated wood should NOT be burned.
4. Sawdust and/or chips of treated wood should not be used in compost or as mulch.

While the risks from treated lumber are low if used properly, there are plenty of other materials available for building containers and raised beds. Natural rot-resistant woods such as redwood or cedar make excellent raised beds, but these materials are generally quite expensive. Another alternative is building material made from recycled plastic is available in most places where lumber is sold. ☺





Clover mite

HOME

Invasion of the Clover Mites

Timothy J. Gibb, Extension Entomologist

Is your home being invaded by very tiny red "bugs" that crawl on walls and curtains? These very tiny creatures (smaller than a pin head) may appear in countless numbers and are most-likely clover mites. They do not bite people. However, they are a nuisance and if crushed, will leave a red stain.

Clover mites are especially common in and around homes where new lawns are being established or where there's a heavy growth of well-fertilized grass close to foundation walls. They feed on grasses, clovers, and certain other plants in the lawn and around the home. They often crawl into cracks and crevices to molt and lay eggs. Typical "hiding places" are under the loose bark of trees, on foundation walls, beneath siding, and around window frames.

Clover mites are most abundant in the spring and fall and are relatively inactive during the hot summer months and again during cold weather. They will migrate into homes either when population pressure becomes too great or when feeding conditions become unfavorable, such as the onset of hot or cold weather.

Once inside a home, clover mites are difficult to control. Although those present can be killed with certain sprays, prevention is better than cure. In other words, try to keep the mites from entering your home. For specific control recommendations, refer to *E-59 Clover Mites in the Home* available on-line at <http://www.agcom.purdue.edu/AgCom/Pubs/> or from your local county Cooperative Extension Service Office or by calling Purdue's toll-free Extension information line at 1-888-EXT-INFO (1-888-398-4636). ☺

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