



# OPINION

## Enjoy Nature At Its Best

It happens every year. Our forests don their red and gold garb for a royal display before the leaves flutter away from their summer home. In Pennsylvania and other northeastern states where hardwood forests cover millions of acres, the color display is particularly magnificent.

Why this fall splendor? According to an Indian legend, celestial hunters slew the Great Bear in the autumn. His blood, dripping from the sky onto the forest, colored many leaves red. Other leaves turned yellow from the fat splattering out of kettles as the hunters cooked the meat.

Other people had other legends. But now we know that the color change is caused by chemical processes that take place in green plants as the season changes from summer to winter.

According to the Wayne County Extension Service, the bright green of plant life in summer is caused by the pigment, or colored substance, known as chlorophyll. Chlorophyll absorbs energy from sunlight. The energy is used to transform carbon dioxide and water to carbohydrates such as sugar and starch. During summer nights, these sugars pass through the leaf veins to all parts of the plant.

Yellow pigments (xanthophyll) and orange-yellow pigments (carotene, which gives the carrot its familiar color) are also present in leaves. During most of the year, these yellowish colors are masked by the greater amount of green coloring. But in the fall, partly because of changes in the period of daylight and changes in temperature, the leaves stop their food-making process. The chlorophyll breaks down and the green color disappears. Then the yellowish colors become visible, giving leaves part of their fall splendor.

Colors that vary from yellow to red to blue are caused by the mixing of varying amounts of chlorophyll and other pigments during the fall season. Chemical changes in the leaves of trees such as dogwoods and sumacs give rise to reddish and purplish fall colors. Other changes turn sugar maple leaves to orange, fiery red, or yellow. In the leaves of trees such as quaking aspen, birch, and

hickory, the yellow pigments dominate and are responsible for the yellow autumn foliage. Many oaks are mostly brownish, while beech turns golden bronze. The brown color in the leaves of these trees is caused by the presence of another substance, tannin.

Brilliant red autumn colors are formed when warm sunny days are followed by cool summer nights with temperatures below 45°F. Much sugar is made in the leaves during the daytime but cool nights prevent movement of sugar from the leaves. The red pigment called anthocyanin is formed from the trapped sugars. Familiar trees with red or scarlet leaves in autumn are red maple, silver maple, flowering dogwood, sweetgum, black tupelo or black gum, northern red oak, scarlet oak, and sassafras.

The degree of color change may vary from tree to tree. Leaves directly exposed to the sun may turn red while those on the shady side of the same tree, or on other trees in the shade, may turn yellow. The foliage of some tree species turns dull brown from decay and never shows bright colors.

The colors on the same tree may vary from year to year, depending on the combination of weather conditions. When there is much warm, cloudy, rainy weather in the fall, the leaves may have less red coloration. The smaller amount of sugar made in the reduced sunlight moves out of the leaves during the warm nights and no excess sugar remains in the leaves to form the pigments.

Conifers, commonly called evergreens, also have color changes in the fall. While most species of conifers keep their needles for several years, all shed some each year. The larch, a deciduous conifer, rivals even the most colorful hardwoods in the fall by turning several shades of yellow and dropping all its needles every year.

Fall foliage rightly draws our attention to the magnificence of our forest resource. And this year in Pennsylvania, the fall splendor provides the most appropriate decoration for the statewide Year of the Forest celebration. So let's get out into the woods and enjoy nature at its best.



## NOW IS THE TIME

By Jay Irwin

Lancaster County Agriculture Agent

### To Check Ventilation Equipment For Winter

Exhaust fans in dairy and poultry houses have a heavy ventilation job to do. They remove moisture and dust, and in many cases run almost continually from October to April.

To prepare your ventilation system for winter, several items may need attention. The fan blades, motor enclosures and louvered shutters need cleaned frequently. Loose belts are common on belt driven fans. Fan output varies directly with fan speed. A 10 percent loss in R.P.M.'s of the fan means a 10 percent loss in air delivery.

Check the thermostat for accuracy by hanging a thermometer beside it for easy comparison. Be sure the sensing element is clean and free from dust.

Have your fan motor protected by adequate overload protectors.

### To Plan Winter Weed Control in Alfalfa

As the alfalfa plant slows down and prepares to go into dormancy, other plant populations in that same field can be increasing in vigor and growth. These are the winter annual weeds: chickweed, shepherds purse, yellow rocket and some grassy weeds which overwinter. All are in their young stages of growth.

You'll not see crop injury now, but wait until that first cutting comes off next May. Those same little weeds all will have flowered and set seed by that time. Not only do yield losses occur, but field curing problems and lower hay quality results.

Fall applied herbicide(s) will largely eliminate the costly winter weed problem. The Agronomy Guide lists a number of effective materials.

### To Hunt Safely

The small game hunting season will open next Saturday. We need to remind ourselves to be courteous and considerate while hunting on farms. We encourage all hunters to practice good relations between farmers and hunters. Criticism of hunting often starts because a few hunters forget the landowner is his host. By observing a few sensible hunting manners, hunters will keep themselves from becoming uninvited guests.

Most landowners permit

reasonable hunting. Asking permission to hunt is a small courtesy in return for a pleasant day in the field, yet too few people follow this rule. Landowners may actually need protection from indifferent, careless and destructive hunters. When the trouble starts, many farmers post their land for protection from irresponsible hunters.

It takes very little time and costs nothing to observe a few common courtesy rules while hunting: ask permission before hunting, close gates, pick-up litter after eating lunch and stay out of unharvested crops. Keep a safe distance from buildings and livestock while hunting and be sure to respect the property of others as you would expect others to respect yours.

### To Check Chimneys and Flues

The heating season is here and many stoves and heating units will be fired up. Is your system safe from a fire hazard standpoint? In this part of the state many tobacco sheds and barns have stoves for working conditions. There are many things that can happen to a stove pipe, flue, or a chimney that will allow sparks to enter into a building. We suggest these items be carefully checked before a fire starts. In some cases the chimney may need to be repaired or repointed in order to make it tight. Don't take chances with heating units. Building replacements are too costly.

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ference, J.O. Keller Conference Center, Penn State University.

### Monday, October 27

Flower Growers Day, Penn State University, Kern Building. Pa. State Grange, Reading Motor Inn.

### Tuesday, October 28

Slit Tillage Field Day, Herb Myer's Farm, 1/2 mile east of Lampeter on Route 741, 1 to 3 p.m.

### Wednesday, October 29

New Holland Sales Stables annual dairy show and sale. Vet Nutrition Forum, Host Town, 7 p.m. Topic: Risk Factors For Abomasal Displacement. Speaker: Dr. Ed Robb, New Bolton Center. Contact: Shannon Newmann, York Extension, 717-757-9657. Delmarva Poultry Nutrition Short Course, University of Delaware Research and Education Center, Georgetown, Del. Others sessions: Nov. 5 and 12.

### Thursday, October 30

Lebanon County Holstein Club annual meeting, Schaeferstown Fire Hall, 7 p.m. Tickets, \$6.

### Friday, October 31

Nittany Lion Fall Classic Sale, State College.

### Saturday, November 1

Annual Banquet, 7 p.m., Bucks County Holstein Association, Kellers Church. Contact Joseph Peters, 215-348-5591. Herr Farms Angus Sale, Nottingham, 10 a.m. Upper Leacock Women's Club

spaghetti dinner, 4:30 to 7:30 p.m., War Memorial Building, Leola.

### Sunday, November 2

Standardbred Horse Sale, Farm Show Complex, Harrisburg; continues through Nov. 7.

### Monday, November 3

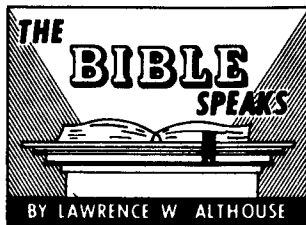
Octorara Young Farmer's

Banquet. Contact Ivan Stauffer, Octorara Vo-Ag Department, 215-593-8259. Topic: Farm Stress.

Mercer County Barn meeting, Mastitis Control and Milking Systems.

Adams County 4-H Beef Show and Sale, Wengers Saddlery, north of York Springs on Route 15. Show, 10 a.m., sale, 7 p.m.

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LIGHTEN THE YOKE  
October 26, 1986

Background Scripture: 1 Kings 11 through 12.  
Devotional Reading: Amos 7:10-17.

As wise as King Solomon is reputed to have been, it is also true that he often ruled most unwisely. By the time of his death, there was far-reaching dissatisfaction in Israel with his heavy-handed and extravagant ways. So, when the twelve tribes assemble at Shechem, they say to Rehoboam, Solomon's son and heir: "Your father made our yoke heavy. Now therefore lighten the hard service of your father and his heavy yoke upon us, and we will serve you" (1 Kings 12:4). Unwilling to commit himself at this time, he asks for three days in which to consider this proposal.

### BE A SERVANT

Rehoboam goes to his advisors for counsel in making a reply to the twelve tribes of Israel. The advice which they gave him is honest and wise: "If you will be a servant to this people today and serve them and speak good words to them, then they will be your servants forever" (12:17). No ruler ever got more sound advice than that.

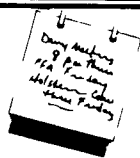
But that was not the advice that Rehoboam wanted. Like many people, what he wanted, apparently was not advice, but confirmation in what he had decided to do. And from his young advisors he heard exactly what he wanted to hear: "Thus shall you speak to this people... 'whereas my father laid upon you a heavy yoke, I will add to your yoke. My father chastised you with scorpions'" (12:10,11).

Although you and I can recognize what incredibly bad advice this was, still perhaps, we can understand the kind of thinking that lay behind it: Do not compromise with a challenge; respond with intimidation - show them who is boss! We can understand this line of reasoning because there is much of it abroad in the world we live in. Compromise is regarded as weakness; conciliation as a fault. **SO ISRAEL DEPARTED**

Don't think for a moment that I am critical of Rehoboam because he didn't listen to the older advisors and hearkened only to those who were young. Age has nothing to do with it - except it is frequently true that age has the benefit of experience. Rehoboam made the same mistake we often make today, worshipping power as if it, not love, was the supreme force in the world. We may well have the power to make the yoke heavier, but often what we need to do is to lighten the yoke.

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## Farm Calendar



**Saturday, October 25**  
Pa. Simmental Association Sale, Green County Fairgrounds; contact: Adeline Angevine, 814-966-3762.

Penn State Angus Sale, Ag Arena, University Park, 2 p.m.

Maryland Holstein Association Field Day. Topic: E.T. and Your Genetic Future. Hills-Hope Farm, Emmitsburg, Md.

**Sunday, October 26**  
Pa. Florists Association Con-

