

## Creosote buildup can cause chimney fires

LANCASTER — These days, many people are enjoying the warmth and cheer of a fireplace or wood stove. Unfortunately, this warmth and cheer has given rise to an increasing number of dangerous chimney fires, points out Delaware Extension safety and energy specialist Ronald Jester. Every year in the United States there are thousands of such fires resulting in over 20 million dollars worth of damage.

Chemical changes occur in wood when it is burned. As a result, gases and tiny droplets of tar and water are released as smoke. The heat generated by these burning gases accounts for a large percentage of the wood's total heat output. However, these gases will not ignite until the fire's temperature has reached 1100 degrees Fahrenheit.

Because wood combustion is never perfect, smoke going up the chimney always contains some of the unburned gases and tars. If the chimney's inner surface is cooler than the smoke, as it almost

always is, then some of the unburned gases and tars will condense out of the smoke onto the chimney's surface. This condensed material is called creosote. When creosote condenses on a relatively cool surface, it will contain a large amount of water and so will be fluid. If the surface is 150 degrees or hotter, the creosote will contain little water and will be thick and sticky like tar. This tar-like buildup will eventually change to a solid or flaky form.

There is no way to completely prevent the formation of creosote. But it can be minimized by avoiding smoldering fires, by burning seasoned hardwoods, and by using well-designed chimneys.

Air leaks, via cracks in the chimney or in the clean-out doors, provide a source of dilution which lowers the stack temperature and increases the accumulation of creosote. Therefore, for safety as well as maintenance, one should inspect a chimney thoroughly to insure that it is without cracks and that clean-out doors are air tight.

It is important to note that creosote condenses from flue gases when the stack temperature drops below 250 degrees. This means that chimneys which are insulated or interior and allow less heat to escape are preferred, especially for air-tight wood stoves. Most creosote fires are associated with poor chimneys that have low draft, cold walls, and too low a rate of burning.

How do you know that creosote has built up in your chimney or flue?

The most obvious way is to inspect the inside of your chimney or stovepipe. You may also notice back drafting and smoking as you load your stove. The connector pipe will also radiate less heat, as creosote is an excellent insulator. If there is more than one-quarter inch of creosote build-up, or if there are small raised bumps of creosote, a cleaning is needed.

Reports from fire victims indicate that a chimney fire is a frightening experience and a potentially dangerous situation. With proper installation and maintenance, regular inspection and cleaning, your chances of a chimney-related fire are remote. Prevention is your best protection. If for some reason you have a fire, here are the signs that you should recognize immediately so that you can respond as quickly as possible.

—A distinct crackling noise in the chimney or stovepipe.

—"Sucking sound" of air being drawn into the stove or chimney. This may increase to a loud roar.

—The stovepipe may shake (beware that it could fall apart spilling flaming creosote).

—The stovepipe may glow red-hot.

—Sparks and flames may shoot out of the top of the chimney or stovepipe—and you'll probably get phone calls from your neighbors!

A last but very important concern is what to do in case of a chimney fire. Following are some recommendations:

—Call the fire department. You may not need them, but if you do, calling later may be too late.

—Gather all occupants of the building and be ready to leave if the situation worsens.

—Cut off air to the fire. If you are using a wood stove, close all its draft and damper controls. If you have a fire in the fireplace, cover the opening with any rigid, non-combustible material (but beware of strong suction caused by the fire). Do not close the fireplace damper as smoke from the fire in the fireplace will then come into the room.

—Use a fire extinguisher. Best is a flare-like one designed specifically for chimney fires. Ignite it like a road flare and place it inside the stove or fireplace.

—Do not pour or spray water directly into the chimney as the

rapid contraction caused by sudden cooling may break some of the tiles.

—Continue to check outer surface of the chimney and any inner walls near the chimney for excessive heat—even after you think the fire is out.

—Check outside to see if sparks and embers blown out the chimney top are igniting roof or brush.

—When the fire's out, sweep the chimney and carefully check for any damage. Resolve to clean your chimney more often.

For specific information contact your local Volunteer Fire Company or the Delaware Cooperative Extension Service.

Learning to harness the energy potential of wood is much like working with electricity, says Jester. It's respect, not fear, that allows us to make full use of it safely.



## From vines to wreaths

(Continued from Page B31)

Becky said regardless if the wreath is an old or new craft, she will continue to enjoy making them along with another Early American home furnishing—rag rugs.

Becky began making the rugs as a counterpart occupation to her outdoor craft. She said she couldn't make wreaths the year round and needed something to occupy her time inside, even when she was producing wreaths.

She already had a loom, but never really used it.

"When I began making the wreaths I started to toy with the loom and decided it was time to use it." She stated that she had always wanted to recycle the old baby and children's clothes that she had in abundance, so what better way she

though than to make rag rugs for her home.

Several rag rugs later, Becky now attends rummage sales and flea markets, purchasing old clothing for the decorative rugs.

Because of her remarkable rugs, another avenue has opened up for this industrious woman. She recently began working with an interior decorator designing rag rugs for a client's home. "Designing the rugs for the home is enchanting, I feel like I am making them for the home of the 'Little Women.'"

Becky Francis is a rare craftswoman, much like those of long ago, recycling materials in nature and in the home into beautiful, unique home furnishings.

We Specialize in Aerial Work Using Our Twin Bucket Boom Truck

Extends To 55 Ft

**ELECTRICAL CONTRACTING**

Specializing in **AGRICULTURAL WIRING**

Also Residential, Industrial And Commercial Work

Free Estimates

**C.M. HIGH CO.**

320 King St. Myerstown, PA 17067 Phone 717-866-7544

We Have Poles in Stock - 25', 30', 35' & 45'

**COMPLETE FARM PAINTING**

INDUSTRIAL RESIDENTIAL COMMERCIAL

We Use Quality Paint

**AERIAL LADDER EQUIPMENT**

- Modern and Efficient Method
- Reasonable Prices
- Spray-On and Brush-In Method
- Sandblasting if Necessary

For Free Estimates Write or Call:

**ESH SPRAY PAINTING**

717-687-7007 or 687-8262 (C. Ralph Miller)

**SPRAY-ON AND BRUSH-IN PAINTER**

637 Georgetown Rd. Ronks, PA 17572

**REPOWER With VM DIESEL**

Harvesters, Haybines, Tractors, Cornpickers, Balers, Hydraulic Systems, Corn Binders, Choppers

**All New HR SERIES - Air Cooled - Oil Cooled - Water Cooled**

**USED DIESELS**

- SR 2 Lister
- SR 3 Lister
- LR 1 Lister
- SL 3 Lister
- HRS 6 Lister
- Like New ST 3 Lister
- 1 Cylinder Deutz
- SV 195 - 14 H.P.
- 371 Detroit

**QUEEN ROAD REFRIGERATION**

Box 67, Intercourse, PA 17534

Phone: 717-768-9006

Answering Service - 717-354-4374

**24 HOUR SERVICE**

WATER COOLED

**MENCHVILLE M. SUPPLY CORP.**

Suppliers of Dried Brewers Grain with Dried Brewers Yeast and Dump Trailer Hauling Available

ANALYSIS ON 100% DRY BASIS

Crude Protein	24%/29½%
Crude Fiber	15%/16½%
Crude Fat	5%
NFE	38%

LOADED FROM THE BREWERY

MENCHVILLE M. SUPPLY

494 Menchville Road Newport News, VA. 23602 804-877-0207

TO YOUR DAIRY