

Spring cleaning: Tips for safe and successful controlled burns on the farm

MARCH 16, 2015 3:23 PM • BY BRANDI JANSSEN



On a dry spring day many years ago, my grandfather decided one of our pastures would benefit from a burn. Faster and more fuel-efficient than using the brush hog later in the year, a spring fire would discourage encroaching timber and weeds and rejuvenate the perennial grasses.

So, without telling anyone what he was doing, he drove his pickup nearly to the middle of our 300 acres and set a blaze. As these things do, the fire quickly spread well beyond his control. It crossed a fence and went into our neighbor's farm.

As this was long before anyone had heard of a cell phone, it took some time to rally the neighborhood and get the fire under control. No people or livestock were injured — just some fences to be mended (both literally and figuratively).

My grandfather was very lucky that day. Researchers at the University of Iowa Hospitals and Clinics state injuries resulting from burning trash, brush and grass are an “underappreciated” cause of injuries in rural areas. One-fifth of patients who come into UIHC’s burn unit have been injured by fire in an open space. In some Southern Iowa counties, the researchers found the majority of flame-related emergency room visits were the result of burning trash or brush.

Young men ages 16 to 44 are the most likely to be injured, but older patients were more likely to suffer complications or die from their burns. Nearly 20 percent of all of UIHC’s burn patients were over the age of 65. Between fall 2012 and spring 2014, six patients died from brush-related burns at UIHC; five of those were over the age of 75.

One of those fatalities was Eugene Phelps, 76, of Bayard, Iowa. Eugene had lived his entire life, save 11 years when he lived down the road, on his Guthrie County farm. On a calm April evening last year, he went out to burn off the garden as he had every spring since he was a young man. His wife, Shirley, checked in on him and he commented that because the evening was so calm, he would let the fire go a little longer to burn some of

the grass near the garden.

The next time she checked in on him, Eugene had fallen and was lying face down near the fire. He was conscious, but very groggy. Shirley ran back to the house to call 911 and by the time she returned, the fire had reached him. Eugene was over 6 feet tall and she was unable to pull him from the fire on her own. She returned to the house to call a neighbor who arrived quickly. Together, they pulled Eugene from the fire.

No one knows why Eugene fell that evening, but he suffered burns over 37 percent of his body. He lived one week before his kidneys failed, a common occurrence with severe burns. Eugene was not the only one injured. His daughter, Elaine Capek, notes, “mom was also burned trying to get him out of the fire.” With burns over 15 percent of her body, Shirley spent two weeks in Iowa City receiving skin grafts and three more in rehab in Waterloo. Even the most routine fires can become unpredictable. My grandfather, working alone in a remote area, was taking a considerable risk. He was about the same age as Eugene and could have easily become overcome by the fire, which was well out of his control.

Eugene was in his own back yard, doing the same task he had done every year. Elaine says, “he was not a person who would take undue chances. He wouldn’t put himself or his family or home in harm’s way. He wasn’t a reckless guy. Burning was a common thing for him to do.”

Burning trash, brush or grass is common in rural areas where trash pick-up is scarce and gardens, fields and ditches will benefit from a controlled fire. Iowa State Extension has developed a guide for conducting a safe, controlled burn, available at <http://tinyurl.com/qhtb3fh>.

A key safety component is creating a burn plan. A burn plan should include a description of the area to be burned, target weather conditions, hazards that may be encountered, personnel needs and safety, and contacts to make prior to burning. Be sure to check with your county’s health department to see if a permit is required.

One of the key causes of injury is use of an accelerant, like gasoline, kerosene or diesel fuel. UIHC researchers report 81 percent of their admissions related to trash and brush burning involved accelerant use, most predominantly gasoline. Gasoline is considered a flammable liquid and should not be used to ignite or manage fire.

ISU Extension recommends part of any burn plan should include personnel — a buddy system. Elaine Capek says, “We learn in kindergarten or pre-school about the buddy system. If we adapt that for our whole life, there’s a lot of things that wouldn’t happen or could be averted.”

Even a small controlled burn near one’s home can quickly become dangerous. Dr.

Nancy Johnson, UIHC Burn and Trauma chaplain, said, “It would be a big stride forward if people would just not burn brush or trash by themselves, they need a Burn Buddy. And if they’re older, they should have a younger Burn Buddy.”

Safe practices

- **Check for local burn restrictions or permit requirements.**
- **Take note of weather conditions, especially wind and humidity. Ideal relative humidity ranges from 25 percent to 50 percent.**
- **Never burn in gusty or variable wind conditions**
- **Have a “Burn Buddy” who can stay until the burn is completed.**
- **Never use an accelerant.**
- **Have fire extinguishment tools on hand, including water supply, shovels and rakes.**
- **Do not delay a call for help. Call the fire department immediately at the first sign of the fire getting out of control.**

General Burn First Aid

- **Stop the burning process**
- **Smother flames: Stop, Drop, and Roll**
- **If it’s a chemical burn, flush with water. Dry powders, such as lime, should be brushed away before flushing with water.**
- **Never use ice on a burn.**
- **Cover burn area with plastic wrap.**
- **Keep patient warm.**
- **Cleanse small burns with soap and water and treat with a topical antimicrobial.**
- **For blistering burns, seek medical help.**
- **If help is needed immediately, call 911.**

Brandi Janssen, Ph.D., directs Iowa’s Center for Agricultural Safety and Health based at the University of Iowa College of Public Health. She can be contacted at brandi-janssen@uiowa.edu or 319-335-4190.