

Low temperature injury

Protecting plants from low temperature injury should be uppermost in the minds of fruit gardeners as winter approaches.

Before fertilizing and pruning fruit plants, allow the hardening process to occur. As the weather turns colder, growth will slow and then stop and sugars and starches will accumulate in the plants. While these processes are occurring, the plants will become progressively less susceptible to low temperature damage.

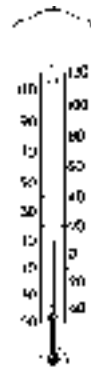
Above all, make sure

dormancy sets in before fertilizing and pruning.

Winter preparedness should go beyond that, however. Protect fruit plants from rabbit and mice damage with aluminum foil or wire screens. Some growers prefer to use a commercial repellent sprayed or brushed on the lower portion of plants. Most of these repellents contain sulfur.

Another good fall practice is to remove weeds and tall grasses from around tree trunks and bush canes to discourage nesting by mice.

Strawberry growers also face some pre-winter chores. One is to mulch the plants with straw. After Thanksgiving, when temperatures characteristically drop below 20 degrees F., cover the strawberry plants with two inches of the mulch. This type of mulching also holds moisture and keeps the plants and fruit clean as they mature next year. (DJ)



Proper mulching

Proper mulching protects trees against mechanical damage by lawnmowers, conserves soil moisture and protects roots against winter injury and frost heaving. Improper mulching—applying too much mulch or piling it up around the trunk—can lead to other problems.

A good fall mulch is two to four inches of wood chips. Applying more—six to eight inches or more—can smother and kill plant roots. Apply it evenly over the roots and then rake or push the mulch back away from

the trunk. Mulch that laps up against the wood can provide a hiding place for mice, which can severely damage or girdle the trunk by gnawing off the bark.

A common consequence of mulching landscape plants with organic mulches, such as bark, is nitrogen deficiency. As soil microorganisms decompose the bark, straw, ground corn cobs, sawdust or other materials, they remove significant quantities of nitrogen from the soil. When the process of decomposition is finished, the nitrogen is released

again, but in the meantime, it's unavailable for plant growth.

Signs of nitrogen deficiency include yellowing foliage and poor growth.

The solution is to apply small amounts of nitrogen fertilizer in the spring before additional mulch is applied and again, as needed, through the growing season. A rate of two pounds of a complete fertilizer such as 5-10-5 or 12-12-12 per 100 square feet in the spring may be all that's needed to keep plants green and vigorous. (DJ)



Marketing your produce

Want ideas on how to increase your customer base and increase sales?

One of the best references you can have is the book, *Sell What You Sow!* by Eric Gibson. It has ideas gleaned from successful marketers

throughout the U.S. presented in a very practical way. Everything is directly applicable to making a living selling fresh produce. Various methods are described with their advantages and limitations. There is an excellent chapter on promotion and another on the business aspects. If you are considering selling wholesale, read this chapter first, before calling on any buyers or produce managers. Copies of *Sell What you Sow!* are available through the Nebraska Fruit and Vegetable Association. Contact Bob Johnson at 402-652-3769 for more information. (DJ)

Fall insect pest - Fleas

Various species of fleas are the most common insects on pets and may increase to high numbers in areas where pets are kept. Fleas spread throughout homes, animal quarters and yards. They attack pets, livestock, birds and people.

The dog flea, *Ctenocephalides canis*, the cat flea, *C. felis*, sticktight flea, *Echidnophaga gallinacea*, the human flea, *Pulex irritans* and other species may be found on pets. Most species are quite active and move through the hair rapidly when disturbed. The sticktight flea attaches permanently in less hairy areas, as around the eyes or ears.

Description and life cycle: fleas are about 1/8 inch long with a compressed body (narrowed laterally). They have no wings. Most are brown with legs well developed for jumping. The head is compressed (usually longer than high), rounded in front and appears to be divided in two parts.

Fleas have four stages in their development: egg, larva, pupa and adult. A generation may be completed in a month.

Fleas deposit small white eggs on the animal, which usually fall off into the bedding area. The larvae are white, worm-like and legless. Larvae feed on organic matter such as hair and on flea excreta which is partially dried blood. The pupal form usually is enclosed in a silk cocoon, encrusted with sand and organic material. Newly emerged adults soon seek a host and spend most of their life on the host.

Important: Fleas suck blood and heavy populations can cause anemia, particularly in young, old or sick animals. The flea bite may be irritating on animals and an allergic skin reaction (skin eruptions) may occur. Flea-infested animals scratch at the site of flea bites because of the allergic reaction that occurs. Fleas may transmit bacterial, viral and protozoan diseases and tapeworms.

Humans may be infested with fleas because of close association with infested animals. However, humans are most often infested with fleas following a period when neither pets nor humans are in a home. The vibration from a person walking

on a floor triggers adult fleas to leave the cocoon in search of a blood meal.

Humans usually are infested around the ankles and lower part of the legs. Some fleas have an anticoagulant in their saliva and a material of low molecular weight which provokes an allergic reaction in the host. This reaction often causes some pain and itching.

Control: For successful control of fleas, both the animal and the premises need to be treated. If only the animal is treated, reinfestation from the premises may occur as newly emerged adults start seeking a host. For specific insecticide recommendations, refer to EC 89-1551, Nebraska Management Guide for Control of Arthropod Pests of Poultry and Pets.

Animals can be treated by using insecticide sprays, dusts, foams, shampoos, collars and pills. Insecticides, in any formulation, are poisonous and label instructions should be followed with care.

Do not use an insecticide on

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Acresage Insights



Tractor safety tips (part 11)

Tractors are one of the most important pieces of equipment on a farm, yet they are also among the most dangerous. More deaths are caused by tractors than by any other type of farm accident. It is, therefore, imperative that tractor owners routinely check their tractors and keep in mind the following safety guidelines:



If the tractor is stuck, never attach a log, fence post, or other object to the tires to provide more traction. If the tire should suddenly stop rotating as it tries to overcome the hump, the potential for a rear rollover increases significantly and the post or other object may be thrown up behind the tractor, hitting the driver. Attach towing equipment to the draw bar only. The best solution is to have another tractor pull you out.

Keep equipment in good working order with proper maintenance. Ninety-five percent of all accidents occur because of human failure. Keeping equipment in good working condition eliminates the remaining five percent of accidents that occur from equipment failure. Furthermore, keeping equipment in good working condition and using proper maintenance practices, reduces the potential number of major repairs. The equipment also will be more dependable in accomplishing tasks. (DJ)

Portable generators

Portable generators are designed to be connected only to selected appliances or lamps. These generators never should be connected directly to a building's wiring system.

Before starting your generator, carefully read and follow all of the manufacturer's instructions.

Be sure that the total electric load on your generator won't exceed the manufacturer's rating.

Always locate your generator where its exhaust will vent safely.

Prioritize your needs. Use the lowest wattage light bulbs that provide a safe level of light, reserving power for additional lighting elsewhere or a small appliance. Remember that the greater the load on your generator, the more fuel it will use.



Keep cords out of the way so they don't present a tripping hazard—especially in dimly lit doorways or halls. Never run cords under rugs or carpets where heat might build up or damage to a cord may go unnoticed.

Extension cords must be properly sized to carry the electric load. Overloaded cords can overheat and cause fires or damage to equipment. (DJ)

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