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Interest in Viticulture on the Increase

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Few people realize that Iowa has a rich history of grape production. Iowa was ranked 11th in grape production in 1899 and 6th in 1919. In 1919, Iowa had 6,000 acres of vineyards compared to the 31 acres of commercial vineyards in 1999. There were several reasons for this decline. Prohibition in the 1920s eliminated incentives for grape and wine production. The Armistice Day blizzard of 1941 severely damaged or killed many Iowa vineyards. Last, but certainly not least, was the increased use of highly volatile 2,4-D herbicides starting in the late 1940s for corn and pasture weed control. Less volatile 2,4-D's used today are still a concern but are much less likely to vaporize and drift into vineyards. Luckily, we have a large selection of other herbicides with no volatility problems that can replace 2,4-D today.

Iowa viticulture (grape production) has come a long way since 1999. There are now 14 bonded wineries in Iowa and many more are being planned. There has also been a huge interest in vineyard establishment to supply these current and potential wineries with locally grown grapes. Without official statistics, I would estimate that over 100 new Iowa vineyards have been established over the last two years. Most of these

vineyards are from 1-2 acres in size. In February of 2001, the Iowa Grape Growers Association held their first annual meeting. You can learn more about them by visiting their website at this address: <http://www.iowagrapegrowers.com/>. In February, 2000, Iowa Secretary of Agriculture, Patty Judge, formed an "Iowa Grape & Wine Commission." Recently, both houses of the Iowa legislature passed legislation, which sets aside a portion of the alcohol gallonage tax to be used by this commission to help develop the industry. As you can see, things have been happening fast.

Think carefully before you run out and start planting grapes. Grapes are a demanding crop and are not cheap to plant. Quality is more important than quantity in grape production. Normally, 600 to 700 grape plants are needed to establish a one-acre vineyard. One can easily spend \$3,000-\$5,000 per acre to establish a vineyard. Once established, several pesticide sprays per season, pruning, and hand harvesting create a high labor and management demand. Actual grape production will not occur until the third year after planting. Full production will normally begin around the fifth year after plant-

ing. Average yields of 3-5 tons/acre can be expected. One can also expect to receive \$500 - \$1,000 per ton for grapes delivered to a winery. Quality and variety will determine the price. A producing vineyard should net approximately \$1500/acre/year to the owner. Approximately 800 bottles (750 ml) of wine can be produced

from a ton of grapes. A single acre of grapes can be worth around \$30,000 for the wine maker when bottled, marketed and sold.

For more information on grape production, I would recommend visiting the NEW ISU Extension Viticulture Homepage at this address: <http://viticulture.hort.iastate.edu/home.html>.

Quality Concrete

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Will you be pouring any concrete this summer? Here are few simple ways to insure that your concrete is long lasting and as strong as you specified from the ready mix plant.

Before any concrete is even poured, a uniform subgrade is needed. A concrete slab requires no special soil, but it must have uniform support. Hard or soft spots will cause uneven settlement and cracking of the concrete. Also, when a concrete slab is being poured, moisten the subgrade to prevent the dry soil or sand from drawing moisture away from the concrete.

The two biggest problems that result in weak concrete are too much water in the concrete and too little water while it cures. The more water that is added per bag of Portland cement in a concrete mix, the weaker the concrete will be. Adding only one-half gallon per bag of cement (about 3 gallons per cubic yard of concrete) lowers the strength more than 10% (500 psi). If you order a certain strength of concrete, and then add water at the job site, the final strength of the concrete will be reduced. The simple rule for quality ready mix concrete is "don't add water."

While it is important not to use too much water in the concrete mix, it is even more important to keep the concrete moist after it's in place.

Concrete does NOT dry. Rather, it cures or hardens by a reaction between the cement and water. For proper curing, you must keep the water in the concrete. If concrete is allowed to air dry, it can lose up to 50% of its strength compared to properly cured concrete. The result is weak concrete with a soft, non-durable surface.

Start the curing process as soon as the surface is hard enough to prevent damage (firm, but still damp to the touch). Allow the concrete to cure at least 7 days for optimum strength. Commonly used methods for curing concrete include:

- Covering the concrete with a plastic sheet.
- Spraying a curing compound (watertight coating) on the concrete.
- Continuously wetting the concrete with a soaker hose.

Following these few simple steps will give you a high quality concrete product. The keys to success are "don't add water" and "keep it wet."

More information on concrete use can be found in the Farm and Home Concrete Handbook from Midwest Plan Service (\$6.00) and in ISU Extension bulletin Pm-1589 Concrete Specifications for Agriculture. Contact your county ISU Extension office or find them on-line at <http://www.mwpsdq.org/> and <http://www.extension.iastate.edu/Publications/PM1589.pdf>

Tomatoes!

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Vegetable or Fruit:

In 1893, the United States Supreme Court ruled the tomato was a “vegetable” and, therefore, subject to import taxes. The suit was brought by a consortium of growers who wanted it declared a vegetable to protect U.S. crop development and prices. Fruits, at that time, were not subject to import taxes, and foreign countries could flood the market with lower priced produce.

Botanically speaking, the tomato you eat is a fruit. A “fruit” is any fleshy material covering a seed or seeds. Horticulturally speaking, the tomato is a vegetable plant. The plant is an annual and non-woody. (source: *Produce Marketing Association and the Produce for Better Health Foundation.*)

Preserving Tomatoes:

Gardeners have choices for how they preserve the goodness of summer tomatoes. Canning, freezing, and even drying as fruit leather are options.

You may request a copy of “Canning and Freezing Tomatoes” from your county ISU Extension office, or print a copy from our publications website at: <http://www.extension.iastate.edu/pubs/>

If you are looking for safe and accurate recipes for everything from catsup and salsa to spaghetti sauce, you may want to purchase a copy of “So Easy to Preserve” through your extension office. It is the best and most accurate food preservation guide for canning, freezing, and drying and is published by the University of Georgia for use by extension in the United States.

So Easy to Preserve gives the following directions for making tomato fruit leather. Core ripe tomatoes and cut into quarters. Cook over low heat in a covered saucepan 15-20 minutes. Puree

or force through a sieve or colander and pour into an electric fry pan or shallow pan. Add salt to taste and cook over low heat until thickened. Spread on a cookie sheet or tray lined with plastic wrap. Dry at 140 degrees F.

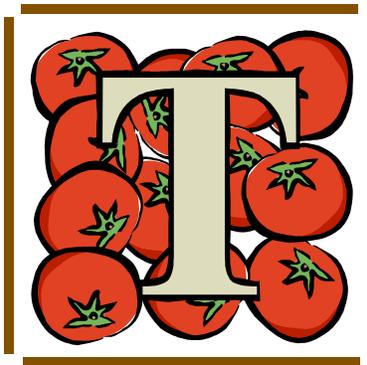
Tomato Quality and Safety

The preferred method for canning tomatoes for optimum color and flavor is to use the hot pack method (heat tomatoes to boiling and boil for five minutes, then pack hot into jars). The hot pack method, in fact, gives a better end product for all foods that are processed by boiling water bath.

Select firm, disease free tomatoes for canning, and to ensure a safe acid level, add lemon juice or food grade citric acid before processing. Be sure to process according to your packing methods; hot packed tomatoes can be processed for a shorter time than raw packed tomatoes. Also, check your geographic location in Iowa against the map in the “Canning and Freezing Tomatoes” bulletin. Altitudes over 1,000 feet require a slightly longer processing time.

Do not can tomatoes in anything other than a jar designed for canning. Commercial jars that other foods are purchased in are called “one trip” jars because they have not been heat tempered to withstand a second use for processing. Chances of breakage and loss of food or injury to the canner are great with one trip jars.

Good news for home canners is that you do not need to sterilize jars for any food that is processed for ten minutes or more (like tomatoes). Just pack into clean jars on which you have checked the rims for any chips or dents that could cause sealing failures.



After filling jars, insert a flat plastic (not metal) spatula down the side of the jar in several places to release trapped air. Don't use metal because bumping the glass can set the jar up for breakage at some point in the future.

Salt does not contribute to the preservation or safety of tomatoes, so it can be omitted if you are watching sodium intake.

Don't tighten jar lids when they come out of the boiling water bath. This is an old process that is unnecessary today that will destroy the seal.

Lingo Lexicon:

(brief definitions of current environmental jargon)

BIOMASS - Literally, biological material. Usually, biomass refers to harvested plant materials that will be used for non-traditional uses such as energy generation or industrial chemicals or fibers. For example, we harvest corn for the grain, but the stalks and cobs can be harvested as biomass and used to make fiber products, building materials, ethanol fuel, industrial chemicals, and even cosmetics. For more information on biomass, check out these web sites: Biomass section of the Iowa Energy Center at <http://www.energy.iastate.edu/renewable/biomass/index.htm>; Ag Fiber Technology website at <http://AgFiberTechnology.com/>; Bioenergy Information Network at <http://bioenergy.ornl.gov/>; Alternative fiber uses at <http://www.fiberfutures.org/>

Help! I Found a Tick!

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Outdoor summer activity in Iowa means exposure to ticks. Here is advice from entomologists at ISU and Ohio State University on dealing with ticks.

Since Iowa ticks must be in areas of high humidity in order to survive, they are most commonly encountered in wooded areas or in areas where there is tall grassy or weedy vegetation.

Controlling ticks in outdoor areas is extremely difficult. Insecticides are usually not effective in eliminating large numbers of ticks for extended periods of time. Limited insecticide sprays of Dursban, diazinon, or Sevin to the edges of lawns, however, can be somewhat effective in minimizing tick movement into these areas.

Wearing long pants tucked into boots or socks and using tick repellents is an effective way of minimizing tick exposure. Careful inspection of all family members and pets after being in tick-infested areas is also important.

The only recommended method for the removal of an attached tick is to grasp the tick just behind the point of attachment and pull straight out using slow, steady pressure until the tick is dislodged. Grasp the tick with fine-point tweezers, a paper towel, or rubber gloves. The bite area should then be washed and an antiseptic applied. Other tick removal methods can actually cause more harm than good. Ticks can be safely disposed of by placing them in a container of oil or alcohol, sticking them to tape, or flushing them down the toilet.

Acreage Living is published monthly. For more information, contact your local county ISU Extension office.

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