



Minnesota Department of Agriculture

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Farmers Need To Prepare for Year 2000

For as long as farmers have tilled the land, we've battled against bugs. Once in a while, though, a new bug comes along that presents new challenges. The "new bug" we're facing in 1999 is unlike any bug we have faced before—the Year 2000 (Y2K) millenium bug.

The good news is that the Y2K bug doesn't attack crops. Our corn, soybeans and wheat are safe. The bad news is that it does attack computers and computer chips, meaning that anything that depends on a computer chip is at risk.

What might the Y2K bug attack? Computers, of course; but also tractors and other equipment, milking systems, global positioning systems, automated mixing systems, irrigation systems, computerized yield monitors, and alarm systems. In your home, equipment at risk includes programmable thermostats, telephones and faxes, furnaces and hot water heaters, security systems and home medical equipment.

Can we do anything to prevent it? Absolutely. This brochure answers some basic questions about the Y2K bug (starting with what it actually is), suggests steps you can take to protect your farm

and your home, and provides a listing of resources for additional information and assistance.

The Y2K bug is a concern, but there's a lot we can do to minimize (even eliminate) the risk of an "epidemic" as we near the Year 2000. MDA is on schedule to be "Y2K ready," and we want you to be ready, too. Review this brochure, and, for additional information and assistance, refer to the resources listed on the back page.

Commissioner Gene Hugoson
Minnesota Department of Agriculture

Steps MDA Has Taken To Be Y2K Ready

- ✓ Began addressing Y2K concerns in late 1996
- ✓ Comprehensive plan in place since early 1997
- ✓ Setting and meeting all intermediate goals for becoming Y2K ready
- ✓ All needed upgrades and replacements for computer network completed
- ✓ Focus shifting to "just-in-case" contingency planning

Is MDA Ready for Y2K?

The Minnesota Department of Agriculture (MDA) has been working to address Y2K concerns since late 1996—long before most of us knew that this long-dormant "electronic bug" even existed. A comprehensive plan has been in place at MDA for more than two years, and the Department continues to meet intermediate goals for attaining Year 2000 readiness.

MDA's entire computer network is ready for the Year 2000. Computers that could not be upgraded have been replaced, and noncompliant software and lab instruments have also been replaced. All custom software applications have been evaluated and modified by a third-party vendor.

The Department's focus is shifting to formal contingency planning, which is designed to address potential power outages, system crashes or bad data. Being Y2K ready means being as ready as possible for the Year 2000, but, because we've never faced this challenge before, we need to be prepared for unanticipated problems. And we believe that we are.

The next question is whether you and your farm are ready for Y2K. Read on for answers to questions you should be asking, as well as a listing of places to go for additional information and assistance.

What is this Y2K thing all about?

Y2K stands for Year 2000. The Year 2000 bug (or millenium bug) was actually created decades ago—although we didn't know it at the time. To save scarce (and expensive) data storage space in early computers, dates were recorded as two digits instead of four digits (56 instead of 1956, for example).

Years later, when conserving computer memory was no longer an issue, the standard had already been set, and dates continued to be represented by two digits. That space-saving technique hasn't been a problem—until now, as we approach the first day of the new millenium.

When the Year 2000 arrives, programs coded with two-digit years may interpret "00" to be 1900 instead of 2000. Such date miscalculations could result in malfunctions, inaccurate information, or even total shutdown of computers and other electronic equipment.

The goal of Y2K awareness efforts is to assure that computers and other electronic devices—from programmable thermostats to tractors to fax machines—are "Y2K ready," which means that the device can recognize and process a date after December 31, 1999.

As a farmer, why should I be concerned?

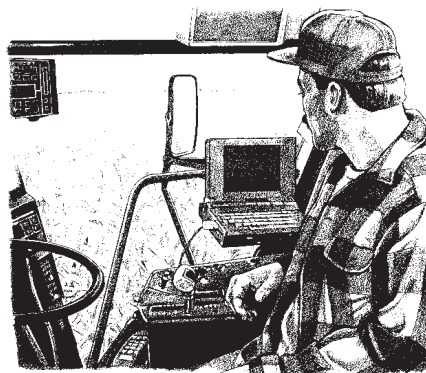
If you own a computer, or if you depend on any programmable electronic equipment on your farm, you should be concerned. Computers and computer chips are an integral part of many of our farm operations—in the house, in the barn and out in the field. Beyond the farm, Y2K is also a concern for business and government operations.



What kinds of things might be affected?

Any electronic equipment that depends on a computer or a computer chip is at risk. A few examples:

- Computers (hardware)
- Computer programs (software)
- Control systems for:
 - Programmable thermostats
 - Furnaces, hot water heaters
 - Computerized yield monitors
 - Grain dryers
- Automated systems for:
 - Watering, feeding, mixing
 - Irrigation and sprinkling
 - Milking and milk storage
 - Heating and cooling
- Security and alarm systems
- Global positioning systems
- Tractors and other equipment
- Telephones and faxes
- Televisions, VCRs, microwaves
- Home medical equipment

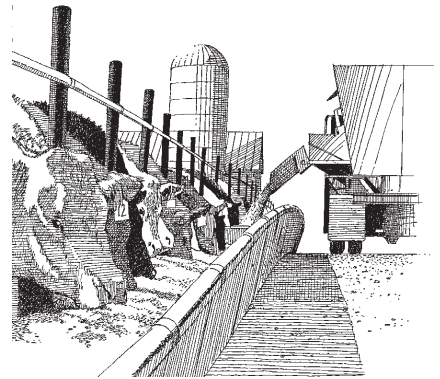


OK, you've got my attention. So how do I begin to "bug-proof" my farm operation?

Here's how to get started:

Step 1: Take a walk around your farm and your house. Make a complete list of all computerized and automated equipment and systems.

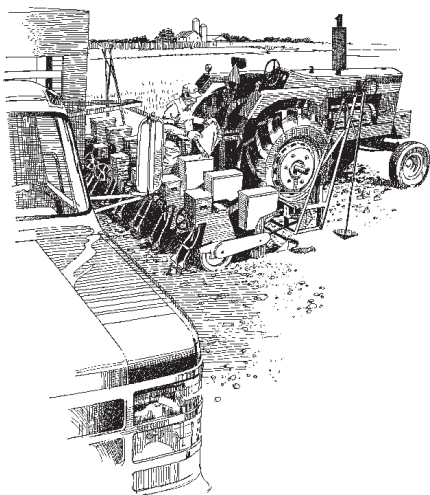
Step 2: Prioritize your list, focusing on "essentials" first. (Your computer or milking system may be more essential than a VCR or microwave.)



Step 3: Gather equipment information, vendor/dealer information and manufacturer information for each piece of equipment. (Check manuals, warranties and original receipts.) Secure addresses, phone and fax numbers, email addresses and web sites.

Step 4: Begin contacting appropriate dealers or manufacturers to find out whether your equipment is Y2K ready. Stop by your dealership, visit the manufacturer's web site, make a phone call or mail a letter.

One way to keep track of everything is to list each piece of equipment on a large (4 x 6) notecard. Add equipment information and contact information as you find it, and use the same card to keep track of dates and responses to contacts you make. Or set up a simple computer program to keep track of your equipment and contacts.



What about dealers and vendors I depend on?

Your farm operation is part of an interdependent network of agri-business partners. As a result, it is in your own best interest to contact the dealers and vendors you work with on a regular basis to determine whether **they** will be Y2K ready.

Can they assure you that deliveries will be on time, that inventories will be maintained, and that year-end (and new-year) accounting functions will be able to handle your purchases, orders and payments? Ask them to confirm their assurances in writing.

It is recommended that you keep written records of transactions and payments as the Year 2000 approaches, to help protect you in case a vendor/dealer system is compromised.

What will it cost me to become Y2K ready?

For many farmers, costs will be limited to postage and long-distance phone charges. For others, software upgrades or equipment testing and repair may be necessary. In some cases, farmers may have to replace noncompliant equipment or systems.

When should I get started? Do I need to prepare for a crisis on January 1, 2000?

Time is running out, so it's important to start as soon as possible. You can complete a farm inventory in a couple of days, but the next steps are going to take more time.

Allow sufficient time for contacting manufacturers and getting responses, securing replacement software, having equipment tested (and perhaps repaired), and, when necessary, replacing equipment that cannot be made Y2K compliant.

The American Red Cross recommends preparing for January 1, 2000, as you would prepare for a winter storm in Minnesota.

Plan on having several days' worth of nonperishable food, stored water, and prescription and nonprescription medications on hand; be sure your gas tank is full; have extra blankets, hats and gloves to keep warm; and have flashlights and batteries available.

Y2K brochures are available from your local American Red Cross chapter, or contact city, township or county offices for emergency management information.

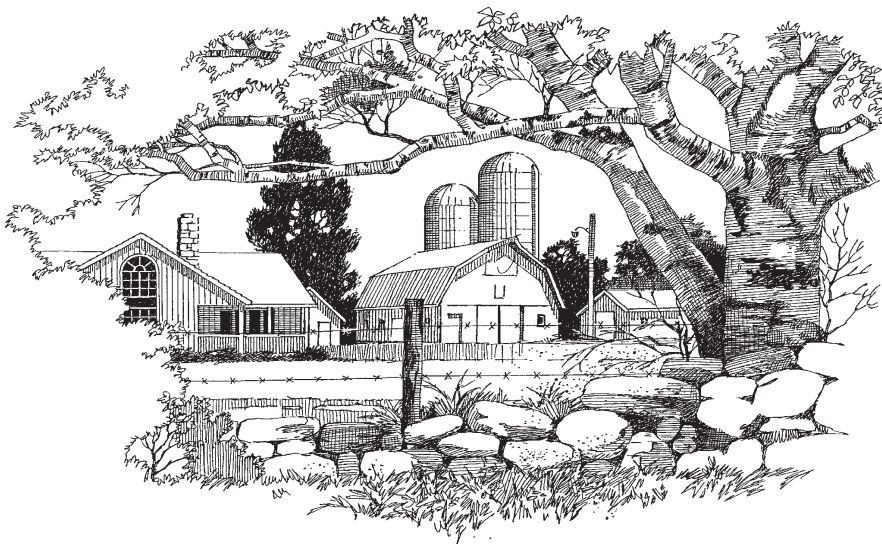
This sounds like a lot of work. What if I do nothing?

Doing nothing would be a risky choice. Every farm operation has some automated or computerized equipment, as does every home. Ignoring the potential impacts of the Y2K bug could result in serious equipment malfunctions that could shut down portions of your farm operation.

Being prepared ahead of time can help minimize the potential for having to deal with a serious crisis—like no heat or malfunctioning milking machines—in the dead of winter.

Where can I go for more information?

This brochure is intended to provide you with a basic overview of concerns and approaches related to the Y2K issue. The resources listed on the back of this brochure—both phone contacts and online assistance—are available to provide more detailed help with your Y2K planning. In addition, you may call your local county Extension office for Y2K inventory and assessment worksheets.



Y2K: Online assistance

Many web sites provide Y2K information, check-lists and troubleshooting suggestions. Many manufacturers post information about the Y2K compliance of their products on their own web sites. If you don't have a computer, call your local library. Most libraries provide internet access.

Minnesota Department of Agriculture
www.mda.state.mn.us/DOCS/COMM/y2kpiece.htm

Y2K and Agriculture: Time To Act
www.cfbmc.com/y2k/english

President's Council on Year 2000 Food Supply Working Group www.usda.gov/aphis/FSWG

USDA Farm Service Agency Year 2000
www.fsa.usda.gov/time

University of Minnesota Extension Service
www.extension.umn.edu/extension/y2k.html

State of Minnesota Year 2000 Project Office
www.state.mn.us/ebranch/admin/ipo/2000/2000.html

Minnesota Division of Emergency Management
www.dps.state.mn.us/emermgt/y2k/index.html

Small Business Administration www.sba.gov/y2k

Minnesota Y2K Information and Referral
www.y2k.state.mn.us

League of Minnesota Cities www.lmnc.org

Minnesota Office of Technology www.ot.state.mn.us

Y2K: What You Should Know
www.redcross.org/disaster/safety/y2k.html

USDA-CSREES Y2K Community Outreach Site
www.reeusda.gov/y2k

Y2K: Phone numbers

Minnesota Department of Agriculture
651-297-1597 (Karen Whiting)
or email to karen.whiting@state.mn.us

President's Council on Year 2000 Conversion
1-888-USA-4-Y2K (toll-free)

Minnesota Year 2000 Information and Referral Line
651-282-2000 (Twin Cities Metro Area)
1-877-925-4189 (toll-free for Greater Minnesota)
TTY 651-282-5599

University of Minnesota Extension Service
Contact your local county Extension office,
or call 612-625-8776 (Bill Bomash),
or email to wbomash@extension.umn.edu

INFO-U system (audio scripts #258 and #259)
612-624-2200 (Twin Cities Metro Area)
1-800-525-8636 (Greater Minnesota)



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