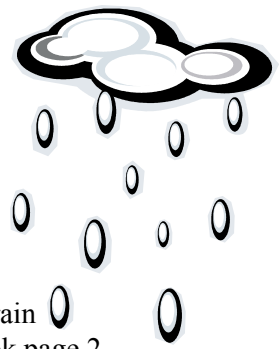


InFARMation

Yukon Agriculture Branch Quarterly Bulletin

Summer 2005

Volume 18 Issue 2



Pray for rain
Weather outlook page 2

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Message From the Agriculture Branch

Summer is here and it appears that things are off to a good start in terms of weather and growing conditions. It truly has been a mild spring although somewhat on the dry side. We hope all of you have a really good production year and that the weather cooperates with your farm plans and aspirations.

First of all, congratulations and best wishes to the efforts of those involved in the Fireweed Community Market. The market received some funding through the Agriculture Policy Framework to start up. They are off to a great beginning and have good support from the community.

Just a reminder that the Agriculture Policy Framework is up and running. It offers numerous programs that can provide assistance to your agriculture plan and farm operation. The new program guides can be picked up at the Agriculture Branch in the Elijah Smith Building, room 320. We believe that there are a number of beneficial programs being offered that meet a wide range of needs.

The Agriculture Branch is also involved this year in some interesting work with legumes. This has been made possible through our own programming as well as funds from Advancing Canadian Agriculture and Agri-foods. If you wish to learn more about this project please contact the Agriculture Branch for details. We now have available the latest State of the Industry report as well as our Yukon Agriculture Research and Demonstration 2004 Progress report.

Just another reminder that the planning for the Klondyke Harvest Fair is under way. This great event is planned for August 20 and 21, 2005, and will be held at Shipyards Park.

On a final note congratulations to Al Falle as the new president of the Yukon Agricultural Association. We are sure that Al and the new executive will have a successful year and add an abundance of energy to the projects Yukon Agricultural Association is working on.

Have a great summer!

Dave Beckman,

Director



Summer Weather Outlook

“And the heat goes on”

- Bill Miller, Meteorological Services of Canada

The temperature forecast for June covers all of the Yukon in red - which means we are in for above normal temperatures. The summer forecast for June through July continues with above normal temperatures and near normal rainfall. The average precipitation for May, June and July at the Whitehorse airport over the past 30 years is 3.3 inches (84 millimeters). In the Yukon's semi-arid environment, plants can suffer desiccation from the increased temperatures if they don't have adequate soil moisture to allow for the increased transpiration.

The potential evaporation and transpiration over a 120 day growing season in the Yukon is around 10 inches (250 millimeters). Satisfying the water requirement of your crop depends on the crop being grown and the micro-climate at your specific location. On average, enough water should be added to cover the evaporation and transpiration loss.

When we get one inch of rain it means we received one cubic inch of rain on one square inch of soil. One inch of rain falling on one acre is equal to about 27,154 gallons (102,800 liters) of water.

For most crops, the greatest limiting factor to growth in the Yukon is moisture. Have a look at your soil. Take a shovel or trowel out into the field and dig down a few inches and feel the wetness. The best way to interpret current moisture conditions is by understanding past conditions.

National CAIS Committee Canadian Agriculture Income Stabilization

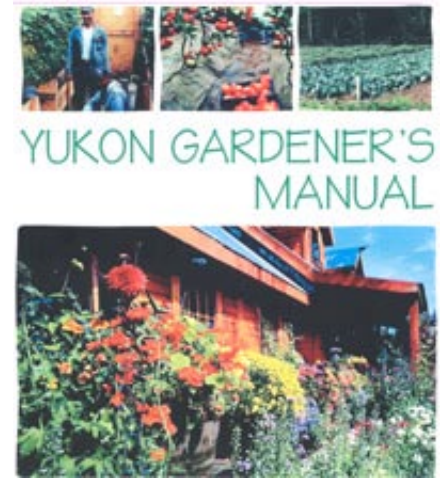
This committee was formed to make recommendations directly to the Federal Agriculture Minister. It consists of 39 farmers and administrators from across the country. The Yukon representatives are Dave Beckman representing government and Dave Andrew representing Yukon producers. The committee had its first meeting May 11 and 12, 2005 in Winnipeg. The next meeting is scheduled for June. If any producers have questions or concerns regarding CAIS, contact Dave Andrew or Dave Beckman so that they can take your concerns to the meetings and inform you of the changes being discussed for the program.

Dave Andrew
Phone: 867.667.7844
Email:
raftera@northwestel.net

Dave Beckman
Phone: 867.667.5838
Email:
david.beckman@gov.yk.ca

New Yukon Gardener's Manual Coming Soon

After a year of work, trial runs in the Yukon Master Gardener's course and revisions, the new Yukon Gardener's Manual is near completion. The new manual replaces the Yukon Garden Handbook and the previous Yukon Gardener's Manual with new, streamlined information that will provide Yukon gardeners with information relevant to northern gardening.



The manual includes chapters on botany, soils, outdoor vegetable gardening, lawn & ground covers, woody perennials, flowering plants, greenhouse growing, and pests and diseases. There is an index being added to the manual and once it has been printed it will be available to northern gardeners at the Agriculture branch for \$20 + GST. The scheduled release date is August, 2005.

The Yukon Master Gardening Manual was created under the direction of Tony Hill, Agrologist with the Yukon Agriculture Branch. Course instructors provided valuable input and feedback during the writing process.

The idea for the improvement and re-writing of the previous manual came from Jeanne Burke, a Yukon master gardener course graduate. Other master gardeners over the years have also contributed slides, course ideas and suggestions for manual improvements.

Funding for manual development was provided by the Canada/Yukon Agricultural Policy Framework Agreement.

The following team was responsible for completion of the manual:

- Jeanne Burke and Debbie Abbott, Writers
- Debbie Abbott, Editor
- Aasman Design, Layout and Design

For further information about the manual, the Yukon Master Gardener's course or other services provided by the Yukon Agriculture Branch, please contact us:

Phone: 867.667.5838
Fax: 867.393.6222
Email: tony.hill@gov.yk.ca

Submitted by

Yukon Horse & Rider Association

The Yukon Horse & Rider Association (YHRA) is a vibrant and active organization with over 70 individuals and families as members. It has been in existence since 1969 and was formerly called The Yukon Horsemen's Association which many of you may remember.

We are an association that caters to all types of riders and their interests. We have people who love and enjoy trail riding, but we also have a very ardent and passionate group of people who are dedicated to specific Western and English disciplines – Reining, Gymkhana, Showmanship and Trail classes for the western folk (plus there is now talk of people wanting to get together to do team penning, calf sorting and the like) and Jumping and Dressage for the English folk. Don't be fooled into thinking that if a person does a Western discipline, they don't ever cross over to an English discipline! Many of us do both! There is also Natural Horsemanship, clicker training and Touch enthusiasts!

Did you know that we have people who train their horses in the Yukon and trailer out to shows and compete in B.C., Alberta and Alaska?

Did you know that we have people who go out to different provinces on an on-going basis to take lessons or clinics with top rated instructors?

Did you know that we have many different clinicians who come to the Yukon in the spring, summer and fall to teach clinics in a variety of English and Western events? Some of these clinics are sponsored by Yukon Horse & Rider, and others are brought up by private boarding and riding establishments.

Did you know that we have a wonderful facility, just five minutes from downtown that includes two outdoor arenas, a round pen, and stabling which is available during clinics, shows and events?

Did you know that the YHRA does more than riding clinics? We bring up horse chiropractors, equine first aid people to teach us basic care and first aid, and saddle fitters – we're always interested in people bringing forth new ideas and suggestions for clinics that help local 'horse people' learn more about caring and looking after their horses.

Did you know that we have a tremendous variety of horses here in the Yukon? We have everything from the good 'ol Yukon horse, to breeds like the Quarter Horse, Arabian, Friesian, Trakener, Connemara, Haflinger, Appaloosa, Morgan, Thoroughbred, Rocky Mountain Horse, Oldenburg, Hannoverian, Miniatures, Paints, Percheron, Belgian,

Norwegian Fjord, Saddlebred plus many more (my apology to those people owning other breeds I haven't listed!)?

The Yukon Horse & Rider Association also produces a monthly newsletter which includes interesting news items and articles, information on upcoming meetings, free classified ads for our members, plus a comprehensive list of horse activities going on in the Yukon, whether it is a Yukon Horse & Rider event, or an event or clinic hosted by a private establishment.

The association is hosting its 26th annual horse show at our showgrounds below Porter Creek on July 14 - 17. The show has something for everyone! On Thursday evening, we have halter, showmanship and lunge line classes. All day Friday is dressage, with the gymkhana events being held on Friday evening - a perfect way to spend a Friday night with the whole family! Saturday boasts the English classes with the flat classes going first and the jumping classes in the afternoon. Bring your cowboy hat down on Sunday and get ready for western! Reining, western pleasure and trail are just some of the few classes that will be held on Sunday.

This summer we're planning an Equine Extravaganza which is a new event for Whitehorse! On July 30, come see and learn about the many and varied breeds of horses we have in the Yukon, plus watch live demonstrations of horses showing their stuff! This is definitely a day that you won't want to miss and it's great for the whole family.

If you would like any more information on our organization, please feel free to contact Vibeke Coates

Phone: 867.633.3012

Web: www.yhra.ca

Happy riding!

Maureen Nielsen – Editor

Box 31482

Whitehorse, Yukon

Y1A 6K8



Free Range vs. Free Run ?

In the most recent “Agri-Digest” out of British Columbia, there was an advertisement from Hills Foods Ltd. This company is a supplier of organic meats, game meats and specialty poultry. What caught my eye about this particular ad was the reference to specialty chicken and the definition they use to distinguish between the two above noted production methods. To quote what was in the ad, they defined *Free Run* as birds that are raised without cages but typically controlled in a barn. *Free Range* birds on the other hand have free access to open fields with some covering provided. *Free Range*,



according to the ad, are the most flavourful. But buyer beware - be prepared to pay a premium for *Free Range* birds due to the higher production/management costs.

- Kevin Bowers, Agriculture Development Officer

Irrigation Pipe Press

With help from the Canada – Yukon Agricultural Policy Framework Program, ten Yukon agricultural producers have been able to purchase a Henry Irrigation Pipe Press to repair broken aluminum irrigation pipes and to install new ends on plain pipe.

The press is mounted on a flat deck trailer so that it can be transported throughout the Yukon. The press comes with dies for pipes ranging from 2 - 12 inches which store inside lockable boxes mounted on the trailer.

All agricultural producers will have the opportunity to buy in as a partner for up to one year at the original share amount. Partners can operate the equipment themselves at no further cost, or a producer can rent the equipment by the hour which will come with an operator to have their repairs done for them.

Anyone who is interested or requires additional information can contact the Project Leader, Dave Andrew.

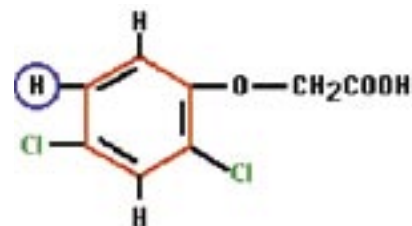
Phone: 867.667.7844

Fax: 867.393.1966

Email: raftera@northwestel.net

2,4-D Herbicide

2,4-D or 2,4-dichlorophenoxy acetic acid, is one of the first selective herbicides ever developed. It was first developed in 1946 and has become the most widely used herbicide in the world. When applied appropriately, 2,4-D selectively kills broad-leaved plants but not grasses. It is a synthetic plant auxin, a type of plant hormone. Since 2,4-D mimics a naturally occurring plant hormone, the compound is easily transported into plant cells, where the accumulation leads to accelerated growth of targeted cells. The resulting accumulation of 2,4-D in specific plant cells and the accompanying accelerated growth of some parts of the plant results in deformation and ultimately plant death. Although we understand how 2,4-D kills plants, we still do not understand the basis of its selectivity for broad-leaved plants. The prefix 2,4 refers to the location of the Chlorine atom around the phenolic ring in the chemical compound (see image).



2,4-D Chemical Structure

Whether you believe in the use of herbicides or not, it is most important not to overuse or abuse these products. Although 2,4-D and other home-use herbicides continue to pass environmental and health standards, the use of these herbicides on lawn and gardens and the potential movement of the chemicals into the surrounding environment needs to be considered. Use common sense when applying these products - if you only have a couple of dandelions in your lawn it is more sensible to hand pick them rather than applying a synthetic compound.

Research and Demonstration Field Day

We would like to invite everyone out to our research and demonstration site at the Gunnar Nilsson and Mickey Lammers Research Forest on July 21 for a tour of the research currently undertaken by the Agriculture Branch. We will be there all day from 9 am to 4 pm. At 12 pm we will be holding a detailed talk on the site research, but stop by anytime and we will be happy to answer questions and demonstrate what is taking place. The site entrance is located on the left hand side of the North Klondike Highway just before the Takhini Corner Gas Station as you head out of Whitehorse. Please come and join us. If everything goes according to plan there will be strawberries to enjoy.

Soil Facts and Stats

- Soil is made from the weathering of rocks. It can take 100 to 1,000 years to form one centimeter of soil.
- Soil properties are determined by their parent material (PM). Soils are a function of PM, climate, topography, biota, and time.
- One gram of coarse sand has approximately 1000 particles. One gram of clay has approximately 90 billion particles.
- Air in the upper 20 centimeters of well-drained soil is completely renewed approximately every hour.
- Soil provides all but three of the 16 nutrients essential for plant growth. The others are provided by air and water.
- Plants growing in a two-acre wheat field have more than 30,000 miles of roots – greater than the circumference of Earth.
- A teaspoonful of soil contains more than 2 billion micro-organisms; one cm³ of soil may contain over 1,000,000 bacteria, comprising of 5,000 – 7,000 species.
- The total living matter in an acre of soil ranges from 5,000 to 20,000 lbs.
- Most soil organisms can be found in the top few inches of the soil where organic matter is abundant. However microbes have been found however as deep as 16 kilometers in oil wells.
- Biological activities of soil organisms follow both seasonal as well as daily patterns. The greatest activity occurs in the late spring when temperature and moisture conditions are optimal.
- The loss of one inch of topsoil due to erosion is equivalent to 150 tonnes of soil per acre. Approximately seven tonnes of organic matter, 400 kilograms of nitrogen, 300 kilograms of phosphorus and three tonnes of potassium would also be lost.
- The explosive action of one raindrop can hurl a soil particle approximately 90 centimeters into the air and up to one meter away.
- Shelterbelts use trees to help slow down wind and subsequently reduce erosion. These offer protection to an area up to 20 times the height of the trees. Shelterbelts can also greatly decrease evaporation from the soil.
- Soil organic matter improves soil structure, workability, aeration, water penetration and water holding capacity.



- Soil sample for fertility in the fall after soil surface temperatures have dropped below 5°C.
- Using forages in a long-term crop rotation can help reduce disease, insect and weed problems.
- Approximately 50 per cent of nitrogen applied will be used by the crop and the rest will be potentially lost through denitification and/or leaching.
- Anhydrous ammonia and fertilizers with a high chloride content, such as potassium chloride (0-0-62), are particularly detrimental to soil organisms.

Adapted from the Alberta Agriculture, Food and Rural Development newsletter: Agri-News. April 11th, 2004.

Growers of Organic Food Yukon

Come join other local farmers and gardeners who are interested in using organic growing methods

You don't need to be big and you don't need to be certified. Find out how to get the best tasting, healthiest food from your garden or farm.

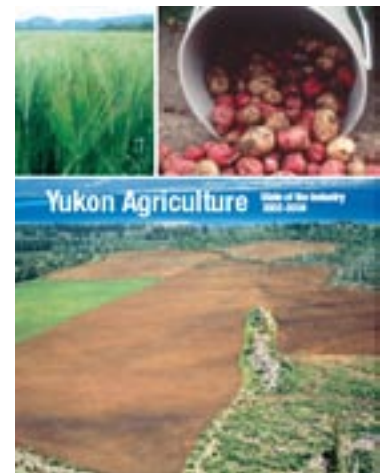
Membership includes quarterly publications of Canada's National Organic Magazine as well as monthly farm tours, speakers, and workshops on issues of interest to organic growers.

Phone: 867.393.GOAT (4628)
Email: yukonorganic@yahoo.ca

Yukon Agriculture State of the Industry 2002-2004

A new State of the Industry report, developed by the Government of Yukon, Department of Energy, Mines and Resources and Agriculture and Agri-Food Canada was released in May 2005. The report provides a record of agriculture land programs, production, infrastructure development and services, government programs, industry associations and activities, and marketing and public awareness events that took place over the past three years.

Copies of the report can be obtained at the Agriculture Branch office or viewed on our website, www.emr.gov.yk.ca/agriculture



2005 School Bison Hunt

In March 2005, the grade 7 class from Elijah Smith Elementary School participated in a successful bison hunt in the Aishihik area. A four and half year old bull was harvested. This program, which has since been adopted by other schools in the Territory, started six years ago. It teaches the students the fundamentals of a winter hunt. This event is assisted by community members and conservation officers.

Kevin Bowers and Denis Lacroix of the Agriculture Branch assisted in the meat butchering and processing which took place in the multi-purpose recreation room at the school. Kevin's sausage making skills helped teach the students the techniques and materials required for properly producing sausage. The students were shown the process from beginning to end with meat selection, grinding and stuffing of the meat into various types of casings. Two varieties of sausage were made, a fresh (bratwurst) and a cured (salami). The final product was then shared with friends and family during the "Beast Feast", an event that gives thanks to all those involved.



Bison ribs - part of the "Beast Feast"



Kevin Bowers demonstrating how to make fresh bratwurst



Mixing bison and ground pork for sausage

Urea vs Ammonium Nitrate

One question that comes up from time to time is which nitrogen fertilizer to use. There are two standard nitrogen compounds that are used for fertilizers – Urea and Ammonium Nitrate. Urea is an organic compound that occurs naturally. Granular urea fertilizers are developed synthetically by combining ammonia (NH₃) and carbon dioxide with a stabilizing compound added such as formaldehyde. Ammonium Nitrate fertilizers are a combination of ammonium (NH₄⁺) and nitrate (NO₃⁻).

Plants take up nitrogen as ammonium (NH₄⁺) and nitrate (NO₃⁻) in the soil. When Urea is added to the soil, the urea compound is converted to ammonia then, through biological activity, to nitrate. For this reason Urea is considered a slower release form of nitrogen, a rate that more closely resembles plant growth.

One of the major concerns with Urea application is the subsequent volatilization of the ammonia when the granular fertilizer is topdressed. Losses of 10-20 per cent are common, particularly in soils with pH above seven, low capacity to absorb nitrogen, high soil temperatures and low soil moisture. This is a combination frequently found in Yukon soils except the high soil temperatures.

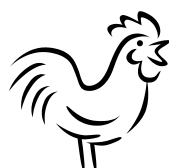
So is it better to use an Ammonium Nitrate fertilizer with 34 per cent nitrogen on a single spring application?

It is important to realize that there is volatilization from Ammonium Nitrate fertilizer as well. A Urea based formula with 46 per cent nitrogen provides a larger amount of nitrogen for a lower cost (especially when you take into account the shipping cost of fertilizer). If, either through rain or irrigation, water is applied to the crop shortly after fertilization, then the difference in volatilization between the two formulas is likely not as important as the added benefit of the higher per cent nitrogen and the slower release rate of the Urea based formula.

Troubleshooting Composting Problems

Problems	Possible Causes	Solution
Damp and warm only in the middle of the pile.	Pile could be too small, or cold weather might have slowed composting	If you are only composting in piles, make sure your pile is at least three feet high and three feet wide. With a bin, the pile doesn't need to be so large.
Nothing is happening. Pile doesn't seem to be heating up at all.	<ol style="list-style-type: none"> 1. Not enough nitrogen 2. Not enough oxygen 3. Not enough moisture 4. Cold weather? 5. Compost is finished. 	<ol style="list-style-type: none"> 1. Make sure you have enough nitrogen rich sources like manure, grass clippings or food scraps. 2. Mix up the pile so it can breathe. 3. Mix up the pile and water it with the hose so that there is some moisture in the pile. A completely dry pile doesn't compost. 4. Wait for spring, cover the pile, or use a bin.
Matted leaves or grass clippings aren't decomposing.	Poor aeration, or lack of moisture.	Avoid thick layers of just one material. Too much of something like leaves, paper or grass clippings don't break down well. Break up the layers and mix up the pile so that there is a good mix of materials. Shred any big material that isn't breaking down well.
Stinks like rancid butter, vinegar or rotten eggs.	Not enough oxygen, or the pile is too wet, or compacted.	Mix up the pile so that it gets some aeration and can breathe. Add coarse dry materials like straw, hay or leaves to soak up excess moisture. If smell is too bad, add dry materials on top and wait until it dries out a bit before you mix the pile.
Odor like ammonia.	Not enough carbon.	Add brown materials like leaves, straw, hay, shredded newspaper, etc.
Attracts rodents, flies, or other animals.	Inappropriate materials (like meat, oil, bones), or the food-like material is too close to the surface of the pile.	Bury kitchen scraps near the center of the pile. Don't add inappropriate materials to compost. Switch to a rodent-proof closed bin.
Attracts insects, millipedes, slugs, etc.	This is normal composting, and part of the natural process.	Not a problem.

Adapted from *How to Make Compost: A Complete Guide to Composting*. April 2005. <http://www.compostguide.com/>



Is chicken soup good for your health?
Not if you're the chicken!



Jim and Kate Buerge have passed on the reins to Garrett Gillespie and Heidi Marion.

“We will certainly miss the beautiful location and all the activities. We will also miss the direct contact with all of the fine people associated with agriculture. It has been a most enjoyable nine years. The best of the future to all of you.” - Jim and Kate Buerge, Tagish Farms

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Herd of Scottish Highland Cattle

Pure Bred and Registered! Very Gentle!
5 Cows with calves on the side
1 Purebred Breeding Bull
Excellent Beef Producers!
Phone: 867.393.3477

Klondyke Harvest Fair August 20 and 21, 2005.

Please contact Rose Drury at the Yukon Agricultural Association if you have any questions or wish to volunteer.
Phone: 867.668.6864

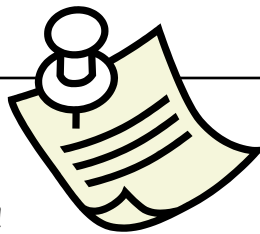
Fireweed Community Market Society

Downtown Market
Thursday 3 pm - 9 pm
Shipyards Park
May - September
Yukon Made Market
Saturday 9 am - 2 pm
Summer at the Takhini Gas Station
(corner of the Hotsprings Road and North Klondike Highway)
Winter at the Hootalinqua Firehall

For Information

Phone: 867.393.4628
Email: fireweedmarket@yahoo.ca

“It’s about more than good food”



Dave Beckman is hanging up his hat this fall after 18 years of service. We are putting together a photo album for Dave - if you have any photos that you would like to contribute to the album please email them to marylynn.drul@gov.yk.ca or drop them by our office.

InFARMation is...

A Yukon government newsletter published by the Agriculture Branch of the Department of Energy, Mines and Resources. If you would like to add your name to the newsletter mailing list, comment on an article or contribute a story, then please write to:

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Or call Tony Hill at 867-667-3417, outside of Whitehorse at 1-800-661-0408 local 3417, or stop by the Agriculture Branch. We are located on the third floor Elijah Smith Building.

Web site: www.emr.gov.yk.ca/agriculture

InFARMation

Yukon Agriculture Branch Quarterly Bulletin

Readership Survey – June 2005

We hope you enjoy the 2005 Summer Edition of InFARMation. It is also on the web at www.emr.gov.yk.ca/agriculture

In an effort to serve you better we would like to hear what you think of the InFARMation quarterly newsletter produced by the Yukon government's Agriculture branch.

We hope you will take the time to answer the ten questions below or contact the branch directly at 1-800-661-0403-5838 or 667-5838. The survey can be dropped off at the branch – Room 320-300 Main Street, Whitehorse; Faxed to (867) 393-6222; or Email your answers to agriculture@gov.yk.ca.

Be sure to include your name and contact information with your completed survey.

1. Do you still wish to receive the quarterly InFARMation newsletter? **Yes** **No**
2. Do you wish to receive InFARMation: (check all that apply)
 by mail by email –address: _____ view it on the web
3. The newsletter is currently distributed four times a year - in the spring, summer, fall, and winter.
Are you satisfied with the frequency of the newsletter? **Yes** **No**
If No – how often would you like to receive the newsletter?
4. How do you use the information and tips provided in InFARMation? (check all that apply) _____
 Farming Business/Job Gardening School Other
5. What is your agricultural interest? (check all that apply)
LIVESTOCK: Beef Wild Game Pork Chicken/Turkey Feed Eggs
 Vegetable/Plant Horses Home Gardening Other _____
6. Do you grow, raise and/or sell agriculture products or services commercially? **Yes** **No**
If yes, please identify: _____
7. What do you like about InFARMation? _____

8. What would you like to see improved? _____

9. What else would you like to see in InFARMation? _____

10. How many people in your household/business read InFARMation? _____

Additional comments: _____