

# THE GARLIC NEWS

### **Connecting the Canadian Garlic Network!**

### Issue 47 Spring 2016

### Incorporating green manures and compost in the garlic market garden plot

### **Crop rotation**

Crop rotation is an age-old proven farming practice. Crops are rotated through the plots of land in a logical sequence. An essential part of crop rotation is planting cover crops to be turned under as green manure to enrich and feed the soil and replace nutrients depleted by cultivated crops.

### Soil is an active, living medium

A basic principle of crop rotation is that soil should be kept in plant growth at all times except for the short periods after harvest and after ploughing down a green manure crop. The soil is living medium, teeming with bacterial activity and microorganisms, destroying pathogens and creating plant nutrients. This activity is fed by adding organic matter. Letting the soil sit bare and idle serves only to leach out needed nutrients and degrade it.

A cover crop takes up readily available soil nutrients to prevent them from leaching out, releasing them later as slow release nutrients when it breaks down to compost. Cover crops and green manures are the same thing. When the plants are alive they are called cover crops. When the plants are ploughed under and decaying, they are referred to as green manures.

Vegetables, and especially garlic, require a rich organic soil, the best soil possible for strong plant growth and high crop quality and yield. Growing cover crops to turn under as green manures is the best way to build a rich, organic soil. It benefits the soil like compost. It can fertilize large plots of land cheaper and easier than hauling in and spreading loads of compost.

### Growing different cover crops

There is a wide choice of cover crops that can be used as green manures. They can be selected for different uses. Buckwheat is a fast growing crop that is excellent for successive plantings to destroy weeds and aerate the soil with its hollow stems; mustard is used for suppression of harmful nematodes both in the spring and summer prior to planting of garlic and immediately following the garlic harvest; legumes capture free nitrogen from the air and deposit it in the soil in a form usable by other plants; an overwintering legume such as alfalfa or clover is planted in the fall for the increased nitrogen that it makes available in the spring when it is cut and turned under; an annual grass such as oats or barley is used to provide soil protection; dwarf white clover is used for paths and walkways; and, all green manures add organic matter to the soil.

### Secondary benefits

Cover crops have secondary benefits as well. Many, like the mustards, can be used as table greens in mesclun mixes. Crops left to flower stage before turning them under attract bees and are often grown by beekeepers to produce clover or buckwheat honey. Livestock owners can cut the crops for hay, letting them grow a second time for use as green manure. See issue 33 of the Garlic News for a more extensive discussion on the benefits of cover crops.

### Incorporating compost

Compost is best applied just before planting a cover crop. The compost promotes microbial activity and the cover crop takes up and prevents nutrients from leaching out of the soil. Compost made by the hot composting method is quite free of pathogens and weed seeds and many growers keep several compost piles working to reuse garden wastes in the best manner. While not essential to the rotation, the periodic addition of compost is valuable addition to soil. **Make a plan** 

### Organic market gardeners develop their own rotation schedule based on their selection of crops, land available for the market garden and cultural approach adopted. When deciding to grow garlic for the market, the grower needs a Business Plan. A crop rotation plan is just one part of business planning for the market gardener.

### A 4-year rotation in a 5-year plan

The rotation plan on page 16 is a guide for beginning gardeners but can be adapted to existing farms as well. It is based on a 5-year plan for developing a market garden, using a 4-year rotation cycle. It calls for three plots of market crops plus one plot of green manures. Garlic is the major crop. Other market vegetables are planted in rotation with it and green manures are used in the year preceding the garlic. The plan can be modified for a different number of rotation years if land is available. A longer rotation is usually desirable for elimination of soil diseases. For gardeners wanting to grow only garlic and no other market vegetables, a less profitable undertaking, cover crops are grown in place of the vegetables. This adds an expense for seed without a market garden crop to sell. However, it is an option to consider.

The higher crop yield from farm or garden plots that have been regularly enriched by green manures, with or without compost will provide the necessary reward for adopting this tried and true organic practice. *Editor*.

**BUY LOCAL, BUY ORGANIC, BUY CANADIAN** 

**IT MAKES HEALTHY BUSINESS SENSE** 

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The purpose of the Garlic News is to enable	Enclosure: A Garlic Year to Remember	
farmers and gardeners to grow better garlic	Copy of Special Garlic News Supplement (for members without Email)	
and enjoy it more. Articles and contributions	Enclosure: Early Bird Renewal for memberships expiring in 2016	
are welcome and will be published subject to space and suitability. They may be edited for		
length and content. The Editor reserves the	2016 Eastern Ontario Garlic Field Day	
right to refuse advertising, subscriptions, or	at the Small-Plot Organic Garlic Variety Trials Site	
material submitted for publication where, in		
his sole discretion, such inclusion would	Date: Sunday, 26 June 2016 from 09:30 a.m. to 3:30 p.m.	
detract from the worth of the publication.	Location: Beaver Pond Estates, 3656 Bolingbroke Road,	
Articles should be not over 400 words or one	Maberly, Ontario	

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Deadline for summer 2016 Issue is June 1

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Attendance: By invitation. Growers within reasonable driving distance, i.e., eastern Ontario and western Quebec receive invitations. If you don't receive one and would like to attend, please contact

Our NEW Email address: garlicnews@kingston.net

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The Garlic News Issue 47 summer 2016

### Notes from our garlic patch

### Garlic News "Thank You"

- - to the following who added \$\$ to their membership renewals to help with the rising costs of production and mailing. The Garlic News is alive and well! Thank you!



Guy Allaire Simon de Boer Pat & Don Dimitrick

### The E-Garlic News, some here, some yet to come

Issues 33 to 36, the 9<sup>th</sup> year of the Garlic News have now been converted to E-format suitable for sending by email. The 10<sup>th</sup> & 11<sup>th</sup> years are already in E-format. The new compression program we are using reduces a complete issue to less than 3 MB in size and photos are in colour. If you'd like to receive the E-Garlic News, contact the editor. A special reduced price is being offered to members who have already received them in paper copy. Regular membership applies to all new memberships and gifts. We are working at getting all back issues made available in E-format. Once a cost breakeven point is reached, it is anticipated that it will be possible to apply a lower membership fee to all E-subscribers. Wait for it!

### Groundhog Day: Feldspar Freddie speaks out



Freddy peered through the little breathing hole in the ice and snow covering his burrow. He shivered. His teeth chattered. He tried to get warm but it was so-o-o cold! Even in his cozy little burrow.

He said to himself, (since there was nobody else around to hear him - they

had all gone south for the winter to where there wasn't so much hot air being spouted about "global warming" and more nice warm, sunny weather prevailed instead):

"How come I can't have some of this global warming, too? This year, I won't bother coming out to look for my silly shadow. You need the sun for that and we haven't had much of that around here, lately. I'm going back to sleep. Maybe when I wake up, that global warming may have arrived. I doubt it. I know that Mother Nature will bring me the nice warm sunshine and melt the snow over my burrow and make the nice lettuce grow in the garden. Maybe, just maybe, next year it will be sunny enough to see my shadow but this year, I'm just going to stay here and try to get warm."

### Did we get that predicted "super El Nino" Ice Storm?

No, thank goodness, it didn't happen. Not in January. We didn't have a white Christmas, not a flake of snow. There were a few instances of mixed rain and snow with a little bit of icy roads but no disaster like Ice Storm 98. In fact, by early January, it was a fairly normal winter with frequent enough snow to keep up training in the shovelling art. But, all good things must come to an end, so, ---- read on.

### Mini Ice Storm 2016 in Ontario & Quebec

When February rolled around, things changed. From weather reports across the land, El Nino was creating all sorts of weather events, record snowfalls in some regions, flooding in others, severe cold in Quebec and a balmy warm weather in Saskatchewan and Nova Scotia. Following a dump of over two feet of snow in mid February in Ontario, a quick thaw and heavy rains followed. By the last week of the month, it had changed to freezing rain with a build up of ice on trees and power lines. Hydro outages, highway accidents and other damages in communities along the line of Lake Ontario and the Saint Lawrence brought a reminder that El Nino was still alive and doing his disastrous deeds. Our emergency generator got a 3-day workout until Hydro crews were able to restore power.

Grower reports of exposed garlic beds and flooding prompted me to put out a special Garlic News Supplement called "A Garlic Year to Remember". The purpose was to determine the extent to which the strange weather events caused by El Nino would have on garlic crops in different regions. A copy of this supplement is attached for members who may not have received the earlier version.

### Advance Notice of special competition: 20<sup>th</sup> Anniversary of the Eastern Ontario Garlic Awards Competition

To mark the 20<sup>th</sup> Anniversary, a special "Longest Braid" competition will be held in conjunction with the regular awards at the 2016 Garlic Awards Competitions to be conducted at the Verona Lion's Garlic Festival. The "Longest Braid" fun competition was conducted at the very first Garlic Awards held in 1997. The winning entry



was a braid 11' long! At a later competition in August 2000, the winning entry was of Guinness World Book of Records class, having nearly 2000 garlic bulbs and measuring 160 feet 5 inches long!

We plan on a \$100.00 prize for the longest braid, and \$25.00 for any braid over 50 feet long, with keeper

certificates for all.

Rules for the longest braid will be published in the summer issue. Although not finalized yet, the following will likely be included in the rules:

- The braid can be made in any style of braiding but must include no less than 10 bulbs per foot of braid.
- Bulbs used must be clean, picked from the 2016 harvest and can be of any variety, size or quality.
- Growers do not have to be a vendor at the festival but all garlic in the braid shall be from the exhibitor's own farm and not include garlic from other growers.

The competition will be run as a separate attraction and not form part of the regular Garlic Awards competition.

### A clove here and there

### The Urban Gardening movement is going strong

Grass roots movements have a positive impact on the quality of food we eat, and, as an extension of that, the quality of life that we live. It is heart warming to see how ordinary people across the land can bring about positive change and counterbalance the negativity of global, industrialized food production.

One of the best of these movements is urban gardening. Over the decades, I have seen the rise of organic agriculture; starting as a rebellion by small numbers of dedicated farmers against poor quality food in the supermarkets, it increased in acceptance to where organic produce is now a major component of the mainstream food supply. In the early 90s came the renaissance of farmers' markets, bringing local farmers with fresh food back to the downtown core of towns and villages. The slow food movement, and the 100-mile diet, the "buy local" approach, the willingness of home gardeners to save seeds in order to protect the world's food sources and many more initiatives have all started at the grass roots level and grown into positive forces.

Urban gardening has potentially the greatest benefits to the world we live in. Populations will continue to move from country to city in greater numbers, resulting in more farmland being converted from soil to concrete, more trees being destroyed to provide streets and parking lots, and less and less of the world being left as nature created it. Concrete and steel displace the land where trees and flowers and farms and wildlife once flourished. There is no way to stop the growth of cities and retain the rural land they destroy. Urban growth is inevitable. However, there are many ways that the urbanization trend can be made less destructive to our natural world. One obvious way is to bring the country to the city. It may not seem like much but every patio container with a Tiny Tim tomato, every square foot of lawn converted to a lettuce patch and every apartment rooftop garden add up. The cumulative effect can be dramatic. Not only does every urban garden reduce the quantity of imported food that must be trucked in over thousands of miles, but also, the positive impact on the environment is inestimable. The exhaust from the concentration of cars and trucks pollutes the air; growing plants scrub those pollutants from the air, making it cleaner. The more plants, the cleaner and purer the air we breathe. Removing a lawn and replacing it with a garden virtually eliminates pesticide and fertilizer use and dramatically cuts back on the water wasted on trying to keep it green. Getting rid of the lawnmower eliminates one of the most contaminating engines from the urban scene. The benefits are endless.

Canadian Organic Growers run seminars and course on Urban Gardening. Look for one in your local area. If you live in the city, look for ways in which to grow some of your own food. There is plenty of information available. Start now and become a "city farmer".

#### Spotted on the Internet

### Chinese garlic is bleached.

According to Henry Bell of the Australian Garlic Industry Association, garlic from China is sprayed with chemicals to stop sprouting, to whiten the garlic, and to kill insects and plant matter. He also reports that garlic is grown in untreated sewage. Bell also calls into question some growing practices in China. "I know for a fact that some garlic growers over there use raw human sewage to fertilize their crops, and I don't believe the Australian quarantine regulations are strict enough in terms of bacteria testing on imported produce," he says. "I also challenge the effectiveness of the Chinese methyl bromide fumigation processes."

### 2015 'unambiguously' the hottest year on record

According to a new report from Berkeley Earth, for the first time in recorded history, the Earth's temperature is clearly more than 1.0 C (1.8 F) above the 1850-1900 average. 2015 was approximately 0.1 degree C (about 0.2 degrees F) hotter than 2014, which had tied with 2005 and 2010 as the previous hottest years. 2015 set the record with 99.996% confidence. The analysis covered the entire surface of the Earth, including temperatures from both land and oceans. The warming between 1970 and 2015 is **nearly 3 times stronger** than the warming since 1850 when temperature records began.

### Injecting trees with a concentrated form of garlic might help save trees in the UK from deadly diseases.

Sent in by Frances Legault Operating under an experimental government licence, a prototype piece of technology to administer the solution is being trialed on a woodland estate in Northamptonshire. Widespread use of the injection process is impractical and expensive. But it could potentially help save trees of historic or sentimental value. Garlic is one of nature's most powerful antibacterial and antifungal agents. It contains a compound called allicin, which scientists are interested in harnessing.

The experimental injection device is made up of a pressurized chamber and eight "octopus" tubes. The pressure punches the solution through the tubes and through special injection units in to the tree's sap system. The needles are positioned in a way to get allicin evenly around the tree. The moment the active agent starts to encounter the disease, it destroys it. The poison is organic and isn't rejected by the tree.

To see the article on U-Tube video, go to:

http://www.bbc.com/news/science-environment-29522647?SThisFB

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### A Garlic Year to Remember: Calls and letters

Last fall, I started to get calls from garlic growers concerned over the possible effects of the strange El Nino weather on garlic crops. Despite my conviction that garlic is a hardy, resilient plant, these concerns prompted me to put out the special February Garlic News Supplement (a copy is attached) asking growers across Canada to report on their crops, either good or bad. Such a weather year has not occurred in my recollection and it's impossible to predict the effect it will have. Grower reports will form a valuable archive of this El Nino crop year. We'll publish them in future issues of the Garlic News. Early reports are below, more on page 17. Editor.

### Eastern Ontario

### From Bernard Smyth, Perth, Ontario

December 25, 2015:

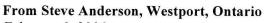
Hi Paul! Thanks for another great edition of the Garlic News! I was just given a birthday present of a garlic braid by a friend who grows garlic. The garlic looked so good and healthy that I decided not to eat it, but rather to plant it. So I was out there yesterday adding to my garlic patch. Imagine that! Planting garlic on Christmas Eve!

### From Carolyn Smith,

December 26, 2015:

Oh no Paul! I think the garlic is confused. I know the rest of us are. Added more straw!

Editor: Hi Carolyn. Checked ours on Dec 23. The Turbans were up above 4" above the straw!!



February 1, 2016:

Hi Paul, I hope all is well with you. Happy New Year! I am sure you have answered this question a few times already this year, "What is this winter weather going to do to the garlic?" Most of mine had sprouted before the snow came and who knows what is going on down there with all the freezing and thawing going on. Any thoughts? *Editor: Yes, it's a strange winter. There will likely be some winterkill if all the snow cover melted from you garlic. A thick mulch of straw would help. Ours nearly all went but we put extra straw on because it was an El Nino year and its hard to guess what that brings. Garlic is usually quite hardy but it's the thaw and heavy freeze cycle that causes the damage. There's no way of telling until spring as to how much was killed off.* 





February 29, 2016:

Hi Paul! Heather Heron here in Bloomfield Ontario. I will be delighted to share my garlic "news" with you. Just getting together a few observations from the fall and winter season. With 200 cloves in the patch I'm a hobby grower but get lots of pleasure sharing with friends and family.

### Karen Poce, Chesley, Ontario

*Mar 3, 2016:* Hi Paul & Mary Lou! Enjoyed the February supplement. I will get something together.



#### Snow, Sleet, Hail and Freezing Rain

From the Fall River Restaurant March Newsletter The gods of sky and weather were named "Theoi Ouranioi" or "Theoi Meteoroi" by the Greeks. They were under the command of Zeus and Hera, the king and queen of heaven. Already in ancient times they engineered weather types designed to harass and make travel inconvenient if not worse.

All precipitation falls through the atmosphere on its way down to earth. Temperature differences in various parts of the atmosphere determine the form in which it will arrive. Liquid precipitation is called rain as we all know. Rain can begin as snow, but by the time it reaches us it will have melted due to higher temperatures closer to the Earth's surface. Snow forms in clouds at temperatures below freezing. In order for a snowflake to reach Earth, it must remain frozen all the way from cloud to the surface, therefore the atmosphere's temperature is 0 degrees Celsius or less all the way down.

Sleet occurs when a snowflake warms up on its way down and subsequently refreezes when it enters a pocket of cold air. It becomes an ice pellet called sleet.

Hail, somewhat similar to sleet, requires completely different weather circumstances. Hail usually occurs in the summer during a thunderstorm. Raindrops form in the bottom of clouds and updrafts during a severe storm cause those raindrops to be carried to the top of the clouds where the temperature is significantly cooler. This cooled water will freeze and forms a tiny piece of hail. It then falls to the bottom of the cloud only to be carried upwards again by (another) updraft. It then comes into contact with extremely cooled water, causing another layer to freeze around the hailstone. The hail falls to the ground when the hailstone becomes too heavy to stay in the cloud.

Freezing rain follows a similar journey as sleet, but instead of a thin pocket of warm air, now it falls through a larger pocket of warm air. It begins as snow, but when it reaches the warm pocket, it melts and becomes rain. Before hitting the ground however, it passes through a very small pocket of cold air, which cools it some but not enough to turn it into sleet. Instead, when the water droplet comes in contact with cold objects on the Earth's surface, it freezes immediately and turns into ice.



### **Ail Quebec News**

By: Jean Lafontaine



### Nothing to declare

### - - But I'm a dreamer

What is there to say about Quebec garlic production in the middle of a crazy dead season, when I feel vaguely worried and there seems to be absolutely nothing to declare?

I know that some Quebec producers up there have been blessed with a decent snow cover over their garlic all through this unpredictable winter, and I wonder if they just take it for granted – yeah, snow as usual... – or if they notice small signs of some relentless change slowly coming to them as well.

For many others these last months, the signs were quite impossible to miss:

- A record breaking warm December culminating with much garlic pointing before winter and enough pouring rain to create the most romantic wet Christmas one could dream of.
- A mix of everything in January: snow, rain, cold stretches followed by spring like warmth, high wind; you name it...just about everything.
- February was made much of the same ingredients, simply displayed in a different order.

Until mid-February I believed my garlic would be safe, as some stubborn cold white stuff held on to the ground above it through all the climate-inflicted abuses. But then it slowly turned into a 2" thick layer of ice, and a few days later came another rain episode that washed my confidence away. Had I mechanically planted this field in the first week of October instead of hand planting it alone for weeks, it would have been done in one single day and I would have had plenty of time to mulch it before the wet conditions made it impossible to access the field with machinery. I trusted there would be snow on it since there had always been good snow there, but this time was different.

What good will it do to know that it was better planted, with love and care, if it's going to freeze now and rot when the soil warms up?

It's good sometimes to be reminded how little control we really have in the end, yet who in garlic hasn't already learned that lesson? Of course, we must keep searching. But what's the ultimate message here? State of heart, earnestness. Looking forward, what else? Smile.

Our Association moves ahead - - - slowly, but slowly. Yes, we administrators and benevolent members have loads of good intentions and great plans for the future of Ail Quebec, yet we are forced to acknowledge that all things take time. More time than we expected, it's true, and it hurts when I think that some AQ members out there could be losing faith in what this association will ever bring them.

Building, furnishing and giving access to the members only section (Espace membre) of our new website proves to be more energy consuming than we thought. For one, we learn from our previous mistakes and set our minds on creating a more intelligent and sophisticated system to administer the growth and daily activities of this young 140 members association.

Let's not forget it was only officially created in November 2013 and grew much faster than anyone expected. Of course we have been forced to improvise.

In the actual integration process of our three new administrators, we try to equip them with better tools than what we started with. In fact, they create most of those better tools! In this process we discover how bright, creative and motivated they are. Blue skies ahead, for sure!

Think of a locomotive, at how slow it is to get started and reach it's cruising speed. But when it's done, how powerful and unstoppable it can be.

You may say I'm a dreamer...



### Ail Rose de Lautrec

The interest in growing Pink Garlic of Lautrec by Canadian growers is on the rise. Lautrec, known for its production of this pink garlic is located South of France. Its very freezing year round. The pink colour of the bulb comes from the clay-chalky hillsides of the Tarn.

Legend from the Middle Ages has it that a peddler settled his bill at an inn at l'Oustallarié with garlic cloves instead of money. The innkeeper planted the cloves, and liking the taste and colour of this garlic, he started the culture. The garlic was produced on a small scale until WWII when young producers decided to promote it and improve the traditional production methods. They founded the Syndicat de Défense du Label Ail Rose de Lautrec (Defense Committee of the Pink Garlic of Lautrec Label) in 1959. Producers within only a designated area of Tarn are allowed to grow it and they must comply with a strict set of specifications covering each stage of the production. In 1996, the Pink Garlic of Lautrec received the IPG or certificate of protected geographical identification. There are several variations of certified Lautrec Pink Garlic: the traditional Lautrec Pink or "forain" and the variants Ibérose, Goulurose, Edenrose and Jardirose. The Pink Garlic of Lautrec Festival was founded in 1970 and is held yearly on the first Friday of August. One of our members, Liz Primeau, visited this festival and subsequently wrote a book, "In Pursuit of Garlic", recording her festival experiences. See Book Review, Garlic News Issue 31. Just how successful this famed garlic from France will be in our much colder Canadian climate remains to be seen.



### Tales of the Stinking Rose from the Wild Rose Country

### **Fungus Frustration** & Dehydrating Part 2 By: Liz Tobola

I've been on a garlic high for many years but feel it's waning.

Soil fungus has been attacking OMA's Gourmet garlic for a few years and I don't know if I'm doing something wrong or if environmental conditions are to blame. So, yes, I'm in a bit of a funk. Do I just wash my hands of this venture? Ouch, I don't think I can do that! It would be easy to do though. See you all later, thank you very much for your time. But, again, I just can't walk away.

The challenge I see is the soil. Everything seemed to be all good when I started. Plant a clove, grow a bulb. They were big and beautiful. Full of flavour, chef's choice! I remember planting spring 2010. "Oh, here's \$3, and another \$3, and another \$3...feeling pretty good." Well we had the rains that year and fusarium spread like wild fire. I sold many bulbs cheap because they were ugly. But, I learned how to dehydrate my OMA's Gourmet Garlic that year. Ha! Well, it turns out that it was a heck of a good thing. I've now got a little following for that Aldersyde White Powder. That part of the business has grown very well since then.

Back to the soil...I've been feeling like quite the dummy on that. I do know the basics and have learned various things but there is still so much to learn. I need to make a better effort whether it be reading a pile of books or taking the plunge into signing up for classes at the Ag College. This year, after rouging out the bad seed, I will be giving the cloves a short bath in alcohol as well as their baking soda soak before planting. We'll see how that goes. **Dehydrating process part 2:** (*see issue 43 for part 1*). After dehydrating, the slices are vacuum-sealed until it's time for the blender. My old Osterizer works wonderfully for chopping up the slices. Then the boring part of sifting begins. I use three mesh sizes to get the powder, granules and abunda. The neuder is filtered out fort in the function

and chunks. The powder is filtered out first in the finest mesh sifter I could find. I shake, shake, and shake the sifter into a big stainless steel bowl. Much sneezing is endured. I do the same for the granules and the sneezing subsides. The sifter I use for the chunks (the chunks are for spice mills) is the easiest as most of what's left is that size anyway. A few shakes over a really large food grade plastic tub are all it takes. Any chunks too big get thrown back in the blender.

I sell the powder and granules in shakers or vacuum pack refill size. The mill chunks refills are also vacuum packed. I store the excess in mason jars.

Dehydrated OMA's Gourmet garlic's shelf life is very long. Even after 3 years it's still full of flavour. Many other cultivars will not last even a year. Good luck with yours!

*Liz can be reached directly: phone: (403) 601-2642, email: OMAsGarlic@platinum.ca, or follow on Twitter: @OMAsGarlic* 

### Selling at the Farmers Market

--- the Early Bird makes the most money on garlic Spring is just around the corner and opening day at your local farmers' market is not too far behind. Farmers' markets are an historic and traditional way of selling farm products. In earlier times, farmers would come to town to buy staples in the shops, at the same time bringing food raised on the farm to sell to the townspeople. This thriving domestic trade occurred on a regular cycle, helping to maintain a healthy local economy. Now that most towns and cities have farmers markets once more, small growers can benefit from this great local market outlet. The farmers' market is the most convenient way for a market gardener to sell garlic, and other produce, at *full* retail price directly to consumers. No middleman to take the profits, no discount or wholesale pricing, the market vendor gets the full price as payment for his work!

To sell successfully at a farmers market, you have to be an active member. That means being there from opening day and every Saturday, rain or shine until the market closes for winter. You wont sell if you're not there.

If you wait until July or August when the harvest of bulbs is ready, chances are that you've missed the boat on building a customer following, and obviously, will have missed out on the money to be made on early garlic and garlic products.

The following are just a few ideas on early garlic sales:

- Garlic greens starting as early as late April
- Other allium such as green onions, scallions,
- Egyptian or "walking onions"
- Windowsill garlic, potted garlic greens or garlic chives in pots
- Garlic bulbils from previous season
- Fresh garlic scapes in June and July
- Garlic chive bunches
- Dried garlic as powder, flakes, chips or pearls
- Garlic salt, with or without other herbs or spices
- Pickled garlic cloves (from previous season)
- Pickled garlic scapes
- Garlic jellies, plain or with hot peppers or herbs
- Dried garlic scape decorations
- Garlic crafts such as garlic paper

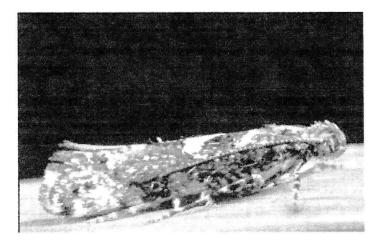
These early garlic products can multiply your sales from the garlic operation, even doubling or tripling your garlic revenue. And, once you become known for your garlic products, those same customers will be at your stall in July and August, lining up to buy their winter supply of garlic and garlic braids for gifts for their friends.

If you haven't already joined your local market, contact the market manager and get your application in right away. And, get cracking on preparations to have your stall ready to sell on opening day in early May.

The Early Bird at the spring farmers' market makes the most money on garlic over the market year!

7

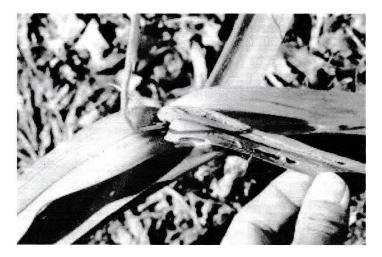
### Leek Moth Alert!



If past seasons are an indication, the leek moth will come out of hibernation and start flying and mating between the first and second week of April. This is when spring temperatures generally rise to 9 deg. C or higher, the warm temperature needed by the moth. It could even be earlier. The female then starts depositing eggs, one at a time, mainly on plants of the Allium family. You won't find them in clusters or bands like most insect eggs. In fact, you likely won't find any at all. They are just too small to see during a field inspection.

The eggs will start hatching in about a week; the 1<sup>st</sup> generation larvae will emerge and start feeding on the leaves of garlic and onion plants.

This is the time to find and destroy them.



The Multiplication Effect: Each female moth lays 100 or more eggs. These in turn hatch and develop into adult moths that in turn deposit 100 eggs each. This repeats over 3 generations every year. By harvest time three months later, the leek moth can have multiplied into millions.

Look at this theoretical worst-case scenario:

• 10 female moths survive the winter. They lay 10 x 100 = 1000 eggs. These will hatch as larvae, pupate and come out as 1000 adults. Assume  $\frac{1}{2}$  male and  $\frac{1}{2}$  female.

•  $1^{st}$  cycle, May-June: 500 new female moths deposit 500 x 100 = 50,000 eggs that hatch into larvae. After pupation,  $\frac{1}{2}$  are male,  $\frac{1}{2}$  female. •  $2^{nd}$  cycle, June-July: 25,000 new females deposit 25,000 x 100 = 2,500,000 eggs. Hatch, feed, pupate and half come out female.

• 3<sup>rd</sup> cycle, July-August: 1,250,000 new females deposit 125,000,000 eggs. When these 125 million eggs hatch into hungry larvae, they can easily decimate the complete garlic crop.

Destroy the early ones: It makes sense to detect and destroy as many of the first larvae that appear in the spring as is possible to reduce the later numbers. Each larva destroyed at this time will mean millions less at harvest time. The key is early detection. Use a thermometer in the garden to get an idea of when the moths will start flying. Then, if the weather stays warm, start daily walk through inspections to look for feeding damage. This can occur as early as a week after the first eggs are laid. Once you spot chewing on the leaf, look for the tiny larva and destroy it.

Larger growers can use pheromones as well as a thermometer for detection. Pheromone traps and lures are a detection aid used to determine when the moths are flying and mating. They are not used for killing the leek moth. The traps consist of three parts; a waterproof rain shelter open at the ends; a cardboard coated with a



sticky substance such as Tanglefoot; and, a lure containing the sex scent of a female moth. The sticky substance catches the male when it enters the trap following the female scent emitted by the lure.

In early April, mount the traps on posts at plant height around the perimeter of the garlic patch and check them daily. Monitor the daily temperature. When the spring temperature rises to above 9 degrees C for several days, male moths will be found caught in the traps. This is an indication that the moths are flying and have started mating. Start daily checks of the garlic patch for signs of larvae feeding 7 days after the first indication. This is the time to destroy them.

The traps provide early indication of the presence of the pest. Using them in large numbers kill off males before they can mate is not a cost-effective measure nor is there any assurance that no mating has occurred.

The leek moth continues to spread and cause damage to garlic and onion crops. Knowing this, growers need to deal with the problem, starting early in the spring. A good management program early in the season is the best way to prevent serious crop damage later.

See article "Living with the Leek Moth" in Garlic News Issue 23 Spring 2010 for a simple management approach.

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Spring 2016

### **Garlic Connections**

Start your day the growing way

### Just South of Algonquin Park

Were in the Highlands we have remained virtually untouched by this season's winter weather roller coaster. We planted deep, in well enriched beds, and fortunately did not experience sprouting. During the harshest temperature swings our garlic simply remained under a foot of insulating snow.

However, this spring, summer and subsequent harvesting season may reveal a different story. Garlic girl will be our roving reporter this upcoming season and will document and journal our garlic story and will "tell all" along with the final report on our Garlic Pest Project in the fall edition.

### Update: Management Solutions for Garlic Pests

Our research on garlic pests is focused on two main pests, leek moth (*Acrolepiopsis assectella*) and bulb and stem nematode (*Ditylenchus dipsaci*), and uses an Integrated Pest Management (IPM) approach.

In 2015 we monitored garlic and wild leek patches for leek moth from May to August. This data has been collected in the Haliburton area since 2013 and has helped to identify hotspots, annual variations in leek moth numbers and how the use of floating row covers can help to reduce damage both within and across growing seasons. This past year we also released a parasitoid wasp at one of the garlic sites, which is a well-tested form of biological control for leek moth in Ontario.

To explore solutions for reducing soil bulb and stem nematode populations, a field experiment was set up in spring 2015 to test the use of cover crops as an effective control method. The two cover crops we tested were: Pearl Millet and Oriental Mustard. To ensure an adequate release of mustard gas into the soil the Oriental Mustard treatment was also supplemented with MustGrow. MustGrow is a pelletized form of mustard oil or glucosinolates which can be applied to the soil in granular form and acts as a biofumigant. Glucosinolate is a natural compound found in the leaves of mustard plants.

Results from this research will be released in 2016-17.

Millet ready for harvest

Mustgrow

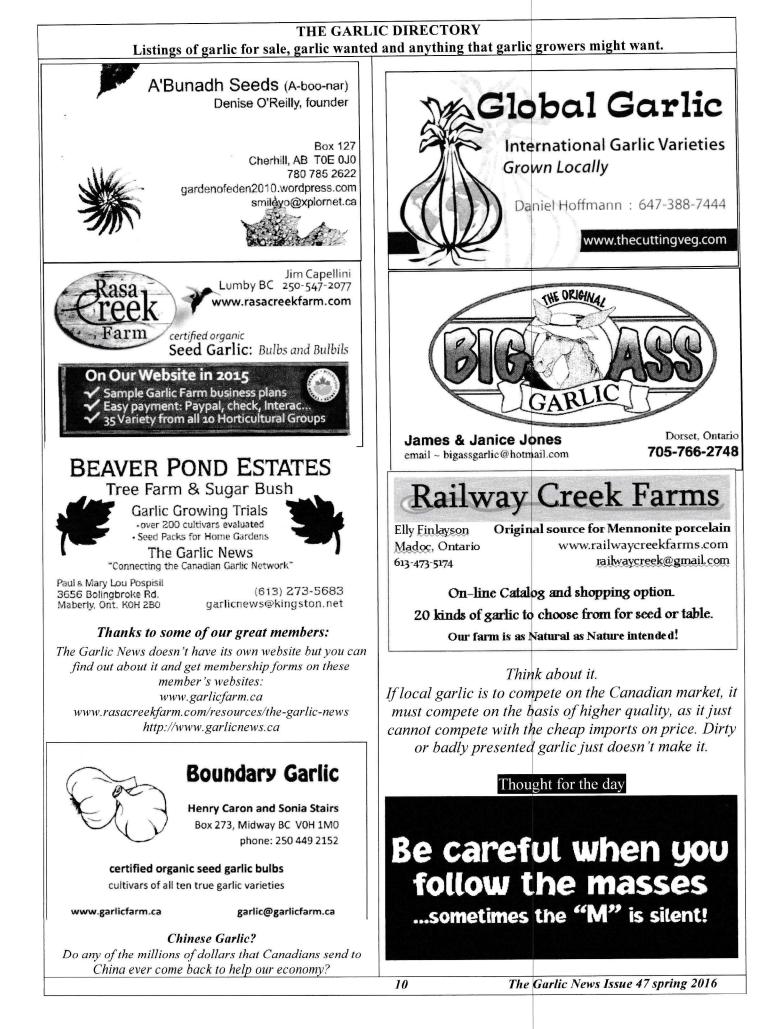


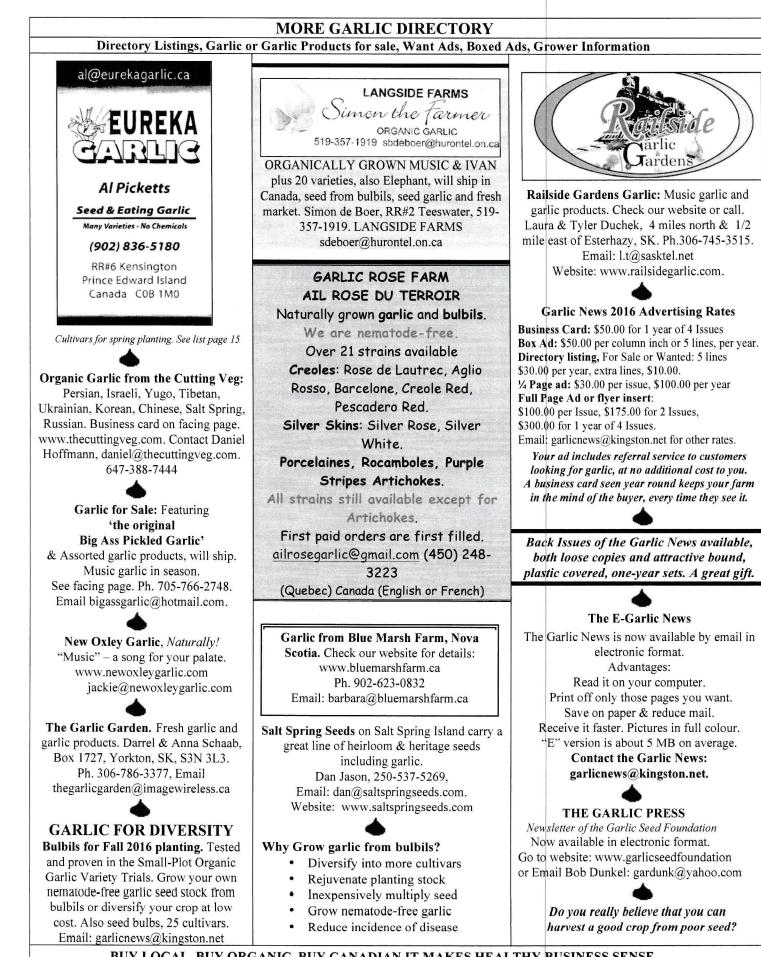
Sealing in Mustgrow (pelletized mustard seed), to gas possible nematode populations



Clean seed planting

To contact the Haliburton County Garlic Growers Association: Visit website: www.haliburtongarlic.ca





BUY LOCAL, BUY ORGANIC, BUY CANADIAN IT MAKES HEALTHY BUSINESS SENSE

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### Featured Garlic Contest\*\*\* Recipes

### Garlic News Cookbook Recipe Contest\*\*\*

Members are invited to enter our Garlic Recipe contest. The top recipes sent in will be featured, along with their creators, in the 2017 Garlic News Cookbook. Recipe categories: Appetizers, Main Courses, Desserts,

Snacks & Condiments, and Roasted Garlic. Please use the Garlic News format to submit your recipe. You may enter two recipes per category for a total of 10 maximum. No recipes pulled off the Internet, please.

Oh. ves. vou can try the 3 star \*\*\*recipes and vote on the ones you really like. Just send in your comments.

Juliana Melenka sent along this recipe for those deliciously fattening biscuits they serve non-stop before your meal in Red Lobster restaurants. I've added a simple way to boil lobster so you, too, can enjoy a Red Lobster Feast in your own kitchen. Lobster wouldn't be the same without, - you guessed it, garlic butter - so make up some of that as well. Editor.



### **Garlic Cheese Biscuits\*\*\* (Appetizer)**

Submitted by: Juliana Melenka, Lamont, AB

#### Ingredients:

1-3/4 cups all-purpose flour  $\frac{1}{2}$  tsp. salt 1/2 tsp. baking powder 5 tbsp. butter 1-cup milk

For topping: 1/2 tsp. garlic powder 2 tbsp. unsalted butter, melted 1 tsp. minced fresh parsley or 1/4 tsp. dried parsley

1 cup shredded Cheddar cheese

Preheat oven to 450 F.

In a large bowl, sift together flour, salt & baking powder. Mix in butter until mixture resembles coarse crumbs. Make a well in the centre of the flour mixture. Add the milk and cheddar cheese, stir to combine. Drop batter by spoonful onto an ungreased baking sheet. Bake in preheated oven for 12 -15 minutes, until lightly browned.

While biscuits are in the oven, stir together the 2 tbsp. melted butter, garlic powder and parsley. Remove the biscuits from the oven and immediately brush with the topping mixture. Allow to cool at least 5 minutes before serving. Makes about 1dozen. Leftovers can be kept in an airtight container or Ziploc bag for up to 3 days.

### How to Boil and Eat Lobster

What could be more Maritime Canadian than lobster? Its our favourite seafood although being dry landers, we get it only on occasion. Here's how to do it:

### Ingredients:

Live lobsters, 1 per person

A large pot of salted water, 2 tsp. salt per quart water. (You can use clean seawater if you have it) Melted garlic butter, for dipping the lobster Method:

Bring a large pot 3/4 full of salted water to a rapid boil. The water should be salty like seawater. An 8-quart pot will easily take one lobster; a 16-quart pot will hold two or three lobsters.

### If you value your fingers, keep the rubber bands holding the lobster claws closed on the lobsters and only remove them after the lobsters are cooked.

Grasp the lobster by the body and lower it upside down and head first into the boiling water. Add the remaining live lobsters to the pot in the same manner. Cover the pot and note when the water comes to a boil again. From that point, boil the lobsters for 12-25 minutes or longer, depending on the size of the lobster. A 3 lb. lobster takes 25 minutes. The lobsters should be a bright vivid red color when done. You don't want to eat raw or undercooked lobster, as it doesn't taste very good. It needs to be opaque through and through. If you cook it too long, the meat will get rubbery, so keep an eve on the time. Remove the lobsters from the pot with tongs and place on a plate to drain and cool.

Put on a bib, start cracking the shells and enjoy the feast! If you end up with leftover cooked lobster meat, chop it up, mix in with mayo, and serve with lettuce on a buttered and toasted hot dog bun to make a lobster roll.

### 40 Garlic Clove Soup\*\*\* (Main Course)

Submitted by: Irene Luchka, Boyle, AB 40 cloves peeled garlic (about 2-3 large heads)

- 3 medium onions, chopped <sup>1</sup>/<sub>4</sub> tsp. thyme
- 1/4 tsp. sage 2 tbsp. olive oil
- 2 cans chicken broth

2 cups water  $\frac{1}{2}$  tsp. pepper

1 bay leaf

3 large potatoes, peeled & chopped

4 to 6 rounds toasted French bread

1/4 cup grated Swiss or Parmesan cheese

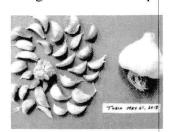
Method:

In baking pan, toss together garlic, onion, oil, thyme and sage. Bake at 350 F for 1 hour, stirring occasionally. In a large saucepan, simmer potatoes together broth, water, bay leaf and pepper until potatoes are tender. Remove potatoes with a slotted spoon and mix with garlic mixture in a blender until smooth. Return to pot of broth and reheat. Sprinkle bread rounds with cheese and broil lightly until cheese is melted. Top each bowl of soup with toasted bread and cheese. Well worth the effort!

For a different flavour, I added some dill before serving.

### How many cloves in a head of garlic?

For growers of the ubiquitous Music garlic, each head



usually has 4 cloves so it takes 10 heads of Music to get 40 cloves. However, Alberta gardeners often grow softnecks such as this huge, size Colossal Silverskin from Turin, AB that had 30 good-sized cloves. Irene Luchka herself grows

another huge, unidentified softneck cultivar that has about 15 cloves per bulb. So, 2 to 3 bulbs of Irene's beauties will give you the 40 cloves!

### Proper use of cutting boards

From the Garlic Guru's kitchen

Every kitchen has one. Good kitchens have several. Cutting boards, that is. One of the most useful items on the kitchen counter and one often used improperly. I often hear people complain about the garlic



smell from a cutting board. Well, a friend of mine solved that problem for me - a gift of a special cutting board for garlic. It was even shaped like a garlic bulb.



We already had several small ones for cutting and serving cheese, so why not a little one for garlic? If you clean and chop your garlic on a separate board, the smell doesn't pass on to other foods. Well,

that may be all very well, but not everyone has as many garlic gadgets and gizmos as I do. So, remove the smell.

### Lemons and salt will remove odour

If your cutting board smells after you chop onions, crush garlic, cut raw and cooked meat and chicken, or prepare fish, get rid of the odour and help sanitize the cutting board by rubbing it all over with the cut side of half a lemon and salt. You can also wash your cutting board in lemon juice.

**E. Coli, Salmonella & Staphylococcus, those bad bugs** Preparing the Christmas turkey is a good reminder about those bad bugs that can make you sick or even die. Never, never use the same board or butcher block that you use for other foods for cutting raw meat, poultry and seafood! Cross-contamination will allow bacteria from the raw meat to contaminate the prepared food, and, make you sick. Always use separate boards. A good kitchen has separate cutting boards for

- Cutting and preparing raw meat
- Cutting vegetables and cooked meat
- Slicing bread; and,
- For garlic gurus, a board for garlic and onions

### **Cleaning a Cutting Board**

After using a board, first wash it off with hot, soapy water. Then, you have a choice of common cleaners and disinfectants to use. The most common are:

- Vinegar, full strength, to disinfect & kill bad bugs.
- Hydrogen peroxide, to kill bacteria.
- Lemons, to remove odour.
- Baking soda, with or without salt, to deep clean.
- Salt, to brighten the wood.
- Bleach, or Javex, diluted, to kill bacteria.

Scrub the board thoroughly and then rinse well and dry.

### "Seasoning" or oiling the cutting board

Wooden cutting boards need to be seasoned or treated with oil to keep them from drying out and cracking. The oil protects the wood and helps makes it resistant to absorbing foods and smells. This should be done before using a new board, after disinfecting a used board and regularly, at least once a month. Again, you have a choice of oils that you can use to protect and maintain your boards. First, the "No-No's":

• Vegetable Oils, such as olive oil, corn oil, and sunflower oil should never be used to maintain a cutting board or butcher block. These oils turn rancid.

• Varnish will chip and peel off, it can be toxic to humans and little bits of varnish in food can ruin its taste.

• Rubbing alcohol, while a good disinfectant will dry out the wood.

• Tung oil, linseed oil, walnut oil and coconut oil all may have problems of toxicity, rancidity or allergic reaction and are not recommended.

The best oils to use:

• Mineral oil, sometimes called liquid paraffin, is recommended. It is a non-toxic, non-drying product derived from petroleum. It is colorless, odorless, and flavorless, doesn't absorb water and is a food-grade mineral. It is a popular choice for cutting boards and butcher blocks.

• Beeswax, a natural wax produced by honeybees, is also a popular choice for cutting board maintenance. Use it to hydrate, shine, and waterproof a cutting board.

What about glass boards, plastic boards and the many others on the market?

Editor: Sure, you can stick those in the dishwasher to sanitize them. That's the modern way. Me, I like traditional things. Things that are real, especially those things handmade of real wood. A cutting board just has to be made of hard maple. Others wont do.



### Medicinal Garlic Soup\*\*\*

Submitted by: Karen Poce, Chesley, ON It's great for sore throats, nose and chest. In Ontario, most colds happen in the winter so this is also a good recipe to use up the garlic as it begins to sprout in your cold room or basement.

### Ingredients:

1 litre of Chicken stock or Vegetable stock

Garlic cloves, whole & peeled, as many as you like

(I've used up to 12 medium size)

- 5 sprigs of fresh parsley, chopped
- 5 sprigs of fresh coriander, chopped
- 4 slices of fresh ginger

1 tsp. each of dried mint, dried basil, turmeric,& curry powder Tabasco sauce to taste, 4 drops to start

#### Method:

Place all ingredients in a pot and bring to a boil. Do not cover; inhaling the aroma begins your recovery! Reduce heat. Simmer for 30 minutes. Cool and either puree for maximum effect or strain through a ricer. 4 servings.

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### Our Featured Garlic Grower from Quebec Ferme La Vallonneuse, St-Valérien-de-Rimouski, QC

By: Jean Lemay



### Growing garlic in Eastern Quebec

300 km east of Quebec City, not far from the main town Rimouski in Bas-St-Laurent, along the St-Lawrence River, is where we have grown garlic for seven years. Last year we had lots of winterkill: 40% of 20,000. I did not install snow fences to accumulate snow and it was costly. From now on I will.

We grow mainly Rocambole and we produce our own bulbils. The advantage with our Rocambole (we never knew the exact variety) is that bulbils are bigger than Porcelain and can sometimes give good size bulbs the second year.



Our 2016 garlic crop is promising. With the help of the snow fences, the snow has accumulated since the first cold. There were two to three feet of snow all winter over the garlic. Lately we received one more meter of snow. Good protection on my field but not everywhere in our region. A friend of mine who's been growing Music for several years just 3 km nearer to the St-Lawrence river has quit seeding garlic in the fall. He lost 80% of his 30,000 Music the last two years. Why? His land is lower. Sometimes it snows at my place (altitude 500' and 6 km from the river) when it rains at his place (altitude 200'). The land is flat at his place. The wind, mainly from west, brings the snow inland and his land stays naked. For almost all winter, there was no snow in his fields. After a warmer period and rain during this winter, he was able to do ice skating with his kids in his field. The St-Lawrence River is 50 km wide here. So the west, north and northeast winds are very strong when arriving on the south shore.

Wind protection. Another important factor -- at least here because we still get a fairly good snow cover -- to avoid winterkilling, the field is protected from the main winds. The 5 acre field where I planted garlic the past three years is surrounded by a mature forest on the west and north side.

Adding several lengths of snow fence to protect from southwest winds and even from west winds (the dominant and very strong wind) completes the protection.

**Straw cover in the fall.** I do not cover the garlic anymore with straw. Why? Because it brings too many weeds. The straw I used to get from neighbours, or even my own oats or barley straw still has grain in it, grain that grows in the spring. And anyway, we have to remove the straw in spring to help the soil warm up. We may have a combine harvester that is too old and maybe badly adjusted. The oats and/or barley growing in the garlic is too much work to remove. One of the organic farming gurus in Quebec wrote that he never uses straw on his garlic. He said that in 30 years, he lost his garlic only two years, and that the ones who had covered their garlic with straw also lost their garlic in these two bad years.

**Spring planting.** In our area, a few garlic growers are now trying to plant garlic in the spring. The main problem we have is that some years, spring comes late and fields are not ready to plant before beginning of May, or even by mid May. Our seed treatment before seeding is one month in a cold room before planting. Another disadvantage is that with a late harvest, we have to dry the garlic later and have to heat a place so it will dry. This is expensive. I have a project of an anaerobic digester to produce biogas to heat our drying room for garlic, thus saving cost for electricity. Not done yet!



Fall planting garlic at Ferme la Vallonneuse Experimenting with garlic varieties from France. The Quebec agriculture ministry has a project to experiment with French garlic. The ministry is offering a chance to experiment with 10 varieties imported from France to three garlic growers in different parts of the province. We are one of these growers. This year we kept only 7 of the 10 varieties. The ones excluded did not produce well or didn't have an interesting taste.

We planted some in the fall and others in the spring. What we hope is that with some of the varieties, we can plant in spring (these being early varieties for short growing seasons). We hope they will have a long dormancy so as to keep good until spring and as well, will have a good taste and a fairly good size – consumers around here like big bulbs!

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### Garlic & Garlic Products from Eureka Garlic, Kensington, PEI

Attention, Market Gardeners!!

### Seed Garlic for Spring Planting Cultivar List

Cultival List						
Variety	Туре	Variety	<b>Type</b> PS			
Eureka Clayton	Т	Persian Star				
Keeper	Т	Kettle River Giant	Art			
Morado Giante	Т	Portugeorge	Art			
Shangtung Purple	Т	Sicilian Gold	Art			
Eureka Xian	Т	Transylvania	Art			
Continental	Р	Alison's	R			
Eureka Clifford	Р	Brown Saxon	R			
Eureka Duncan	Р	Eureka Allen	R			
Eureka Jenny	Р	Eureka Helen	R			
Eureka Rowan	Р	French Rocambole	R			
Eureka Veronica	Р	German Brown	R			
Floha	Р	GSF65	R			
Georgian Crystal	Р	Italian Purple	R			
German Porcelain	Р	Kiev	R			
German White	Р	Kilarney Red	R			
Great Northern	Р	Korean Purple	R			
Mennonite	Р	Marino	R			
Moravia	Р	Salt Spring Select	R			
Music	ic P Slovakian Mountain		R			
Northern Quebec	Р	Spanish Roja				
Susan Delafield's			R			
Darwin	PSM	Ukrainain Hot	R			
Eureka Amie	PSM	Eureka Danaerys	SS			
Eureka Judy	PSM	Nootka Rose	SS			
Eureka Kim	PSM Silverskin		SS			
Eureka Myrtis	PSM	Elephant	Е			
Khabar	PSM	Jumbo Elephant	Е			
Vekak Czech	Yekak Czech         PSG         Cuban Purple Creation					

Key to Type T...Turban P...Porcelain PSM..Purple Stripe Marbled PSG..Purple Stripe Glazed PS....Purple Stripe Art..Artichoke R...Rocambole SS...Silverskin E... Elephant C...Creole

Spring Seed Garlic Prices 1-5 bulbs: \$4/bulb 6-49 bulbs: \$3.50/bulb 50+ bulbs: \$3.00/bulb

Order products now for quick delivery. Garlic will ship in time for planting. Al

### "Let my business help your business"

### Garlic Products at Wholesale

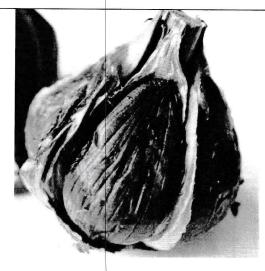
I make a nice selection of value-added garlic products that I offer in bulk quantities at wholesale prices. These sell well at events & farmers' markets and it can save you a lot of time. You just package them into retail packs. The following products are available at a **new, lower** wholesale price:

### **Dehydrated Garlic Products**

Garlic Powder, or,<br/>Garlic Pearls5 lbs. for \$250.00Garlic Scape Powder, or<br/>Garlic Scape Soup Beads5 lbs. for \$200.00Fresh Scapes: Call for bulk pricing in season

### Eureka Black Garlic

Prices: 50g bag, \$5.00 : 1/2 lb. bag, \$17.00 : 1 lb. bag, \$30.00 : 4 lb. bag, \$100.00 : 50 lb. tote, \$1250.00 (Shipping included in tote price)



Contact Al Picketts, Email <al@eurekagarlic.ca> Phone 1-902-836-5180 or cell 1-902-303-5549

			Fall	e plantings eeds and ter.	e plantings eeds and ter.	Veg + Winter GM	Veg + Winter GM	Plant Garlic	Post-crop mustard + Winter GM	that the other with no return. manure crop.	
Planning an Organic Market Garden Rotation with Garlic as a Major Crop		Plot 4	Plot 4           Spring         Summer         Fall           Preparatory:         Successive plantings         of GM to destroy weeds and add organic matter.	y: Successive to destroy we l organic mat	Preparatory: Successive plantings of GM to destroy weeds and add organic matter.	Veg	Veg	Mustard	Harvest Garlic Crop	uffice to say 1 ow only garlic seed without lown a green	
	ı plot a 4-year rotation.	rotation.		Spring	Preparato of GM ad	Preparato of GM ad	Veg	Veg	Mustard +Add compost	Garlic	than garlic. S wishes to grc ed money for ter plowing d
			Fall	ive plantings weeds and	Veg + Winter GM	Veg + Winter GM	Plant Garlic	Post-crop mustard + Winter GM	Veg + Winter GM	This example shows the first 5 years of a typical 4-year organic rotation. It does not include the selection of vegetables (Veg.) other than garlic. Suffice to say that the other vegetables in the two plots should be selected on the basis of good organic practice combined with market demand. If a grower wishes to grow only garlic with no other vegetables, successive cover crops may be substituted; however, this is more expensive as the cover crop then costs added money for seed without return. A basic principle of crop rotation is that soil should be kept in crop at all times except for the short periods after harvest and right after plowing down a green manure crop. Green manures (GM) are selected for different uses. Compost is best applied just before planting a green manure.	
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			Spring	Preparator of GM	Veg	Mustard +Add compost	Garlic	Veg	Veg	ear organic r on the basis o be substitute be kept in cr Green Compost	
			Fall	e plantings eeds and	Plant Garlic	Post-crop mustard + Winter GM	Veg + Winter GM	Veg + Winter GM	Plant Garlic	f a typical 4-y be selected c er crops may at soil should	
		Incorporat	Plot 1	Summer	Preparatory: Successive plantings of GM to destroy weeds and	Mustard	Harvest Garlic Crop	Veg	Veg	Mustard	irst 5 years of plots should iccessive cov rotation is th
				Spring	Preparatol of GM	Mustard +Add compost	Garlic	Veg	Veg	Mustard +Add compost	e shows the f les in the two egetables, su ciple of crop
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Γ	-			•			16	The	Garlic News Is	sue 47 spring 2016	

### A Garlic Year to Remember: Calls and letters

*(Continued from page 5)* **From Denise Machin, Courtney, Vancouver Island** *February 4, 2016:* 

This is two of our three fields taken last week of January! Garlic already almost a foot high.



**From Sandy Kell, Lake Cowichan, Vancouver Island** *February 28, 2016:* 

Hi Paul, It looks like my garlic patch will be a bumper crop this year. Keeping my fingers crossed. Anyone here in the banana belt should have good results. We have only had a bit of snow twice this winter but lots of rain. My garlic is up about 8+ inches now. Had to remove a lot of the maple leaves off a few weeks ago. Since we have had elk & deer in our yard, I really hope they don't like garlic. I do hope this is the kind of report you are asking for. I'm looking forward to seeing how the new varieties I got from you will turn out.



### From James Capellini, Rasa Creek Farm, BC *February 28, 2016:*

Hi Paul! Great idea to put out the special supplement about this year's weather. It's raining/snowing outside my window right now, with temperature hovering at 0 deg C, but we still have about a foot of snow covering the garlic field. Most farms in this area are already bare, though, because they're much lower in elevation than Rasa Creek. An idea for you to consider: I've got about 750 people on my email newsletter list now. Would it be all right to provide a link to your Special Supplement that they could access for free? I could also provide a link directly on my website so that we can reach as broad an audience as possible. I would request that people take to heart the idea of recording their experience from this year and submit their records to you, and I would also highly recommend that everyone subscribe to the Garlic News if they haven't already done so. This Supplement will give people a little taste of just how valuable your publication is. Just so happens that Denise Machin signed up for the RCF newsletter a few days ago and I was entering her contact data when your email arrived. Her information was on my screen as I read about her foot tall garlic! Small world!

Garlic gardening tip: As soon as the snow is gone from the garlic beds in early spring, pull back the mulch a bit to let the sun thaw the soil. Replace the mulch later to keep weeds down.

### Alberta

### Liz Tobola, Aldersyde, Alberta

March 7, 2016:

So tempted to start planting last month! Just checked the soil this weekend...still frozen 3" down. A couple or few more weeks and I should be able to start.



### Saskatchewan

### Anna Schaab, Yorkton, SK

March 5, 2016:

Holding our breath in Saskatchewan, as the winter has been warmer than normal. Darrel placed a thermometer at the clove level and has been taking daily recordings. The coldest reading was on January 17 (-30 deg.) with 8" of snow and a reading of -1.9 deg. C at clove level. We have found results indicating many +0.1 to as high as +1.7C. Good snow coverage this year, February averaging 10 -13" with the oats for snow fence being the saving grace. It will be interesting to see how the garlic does come spring. We will be submitting an article when we have an idea of how things progressed. Will keep you posted.



### **Ontario South**

### Klaus Asmus, Brampton, Ontario

February 28, 2016:

Hi Paul! I grow Chesnok Red and Sweet German (a Porcelain type) in Brampton Ontario. I planted my garlic at my usual time in the third week of October. After planting I covered the bed with about an inch of compost. Fortunately nothing sprouted during the warm autumn we experienced. My sister plants her Sweet German in Mississauga. She was a week or so later planting her garlic than me, and her garlic all sprouted. I told my worried sister to mulch her garlic with a thick layer of leaves, to hopefully protect it, time will tell.

My Mum planted her Sweet German and Chesnok Red around the same time as me, also in Mississauga. My Mum covered hers with a layer of compost as I do. Her garlic didn't sprout in the fall or early winter.

I thoroughly enjoy your publication. I love homegrown garlic!

### Quebec



Editor: Thanks to Jean Lafontaine, the Special supplement was translated into French by Sylvie Maurice and distributed in the March 2016 Ail Quebec newsletter. This will get it to a large number of growers, many of who were adversely affected by the El Nino weather.

DRESSONS ENSEMBLE LE PORTRAIT PAN-CANADIEN DE L'INFLUENCE DE L'HIVER 2015-16 SUR NOTRE PRODUCTION D'AIL. par Paul Pospisil, éditeur The Garlic News. Traduction: Sylvie Maurice



### More calls & letters

(Continued from page 17)

#### **6-Clove Music**

Reports on the 2015 harvest of Porcelain garlic in the Eastern Ontario region indicated an abnormal incidence of 2 and 3-clove bulbs. See Winter Issue.

Now, an opposite result has been reported.

Ron Derraugh, a home gardener from Mountain, Ontario reported that for the first time ever, all his Music garlic was very round and uniform and his 150 plants produced one hundred & forty 6-clove bulbs and ten 7-clove bulbs Strange!

Editor: If anyone else in Zone 5 regions experienced this?



#### **Planting Bulbils** David Waugh of Port Moody, BC asked:

I have some bulbils from a Russian Red umbel from last August. I live on in Port Moody, B.C. and we could still have some frosts. I planted about 400 cloves of Russian Red last October but did not get around to planting the bulbils. Would it be O.K. to plant them now or should I wait until all frosts are gone. I was thinking of planting in sterilized topsoil in pots to begin with. Is bulbil size a determining factor in getting good results? Should I put them in the fridge for a week before planting? At the moment they are at about 15 C in an open closet.

Editor: Hello David. It would be best to plant them now. Rocambole bulbils, like their bulbs, dry out by the next year they have a storage life of 7-9 months - and, you lose them. Your planting approach sounds good. Chilling them will encourage earlier sprouting, again recommended. Bulbil size is definitely a determining factor. The largest of the bulbils will give you the largest round (or bulb) when you harvest. You may wish to discard the one or two very smallest ones that usually occur in each capsule, as these will give disappointing results.

### **Mechanical Planters** Denise O'Reilly, A'Bunadh Seeds & Hill and Dale Farms, Cherhill, Alberta, asked:

Thanks for all you do in the world of garlic. I hope to expand the field size for the garlic this next year and search out a planter that will put them in the ground the right way up? Isn't this an issue with mechanical planters? It would make expanding much easier. Editor: Mechanical Planters? Well, they all have problems and few give fully satisfactory results. I see a lot of used ones offered for sale, likely because the seller gave up on it and is trying to pass it off on an unsuspecting sucker just to get his money back. The best technique is to use a dibbler; likely a rolling one for large plots, but the planting is done by hand, dropping the cloves into the dibbled holes.

You would be well advised to concentrate on harvesting techniques and harvest aids. Planting is relatively quick and easy, compared to the vast amount of work needed at harvest time to produce a quality product. Lifting the bulbs, cleaning them, peeling dead leaves, cutting roots and stems, inspection, grading, curing, selection and packaging, etc. takes about 3 to 4 times the labour of planting.

### Harvesters

Denise, again: I appreciate your insight. I have an onion/potato planter for the spuds and a harvester, which works great, might consider it for the garlic, but I would hate to have it, cut some off. I was more thinking of a planter if I go any bigger, or larger scale with a field planting application, but I think you are right, that the dibbler is the way to go, even if it is a rolling one and the planters follow behind and drop the cloves into the hole. It is all work, isn't it? I have some ideas for harvesting, as my husband is a millwright. The potato harvester would work if the rows were only 3 across and not 5, but then there is the spacing between rows and they would have to be somewhat hilled to ensure that you did not slice off the heads!! We will work on it. Love that garlic though! I probably have 150 lbs. to sell this year. I sell heads #2 and bigger for \$4, no problem. I will sell the bulk for \$16 a lb. most likely which is what it was fetching 5 years ago.

Editor: For harvesting, the "Double-Forty" system promoted by David Stern of the Garlic Seed Foundation seems to be the most effective one that I've run across. Double for two rows and forty for roughly the 40" space between tractor wheels. A hiller is used to make the raised beds between the wheels. Row spacing is wide enough so you can modify a cultivator (by removing spades) to enable mechanical weeding (no mulching in this system) between and outside the two rows. At harvest, they use an under cutter bar, 3PTH mounted, to cut the roots below the bulbs. The plants can then be easily lifted and moved to the cleaning station for manual cleaning, grading and sorting. David doesn't believe in machines for handling the bulbs. Damaged bulbs are not suitable for market.



### **Booming Bulbil Sales**

Jim Capellini of Rasa Creek Farm in BC, reported: Rasa Creek Farm sold something like 3,000 umbels last year and I just received an email from a contact I have in Cape Town, South Africa, who said she's been growing up her inventory of a few varieties from bulbils, too. She said she started with just two umbels of Korean Wildfire back in 2011 (purchased from Boundary Garlic) and now has 1,000 bulbs she'll be harvesting this year. South Africa and Australia are both at the beginning of an explosion in gourmet garlic production. They're very excited by it all. One farmer near Durban, South Africa, has even said that he wants to attend one of Rasa Creek's garlic growing workshops in the near future! We'll see.



Garlic, too?

## Carlic News

### **Connecting the Canadian Garlic Network!**

### **Special Supplement February 2016**

### A Garlic Year to Remember

### Share your garlic story

We're having crazy a crazy weather winter; severe cold, extreme warm, thaw, flooding, well, just about anything you can imagine with strange things happening in every part of the country. It's very difficult to say what impact it will have on the garlic crop.

This year, more than any other, I make an appeal to garlic growers to share your garlic story. It will be worth recording for history just how much effect, if any, that the fall and winter 2015-2016 weather had on the garlic.

### **Questions?**

These started last fall when growers discovered that their garlic was growing before freeze up. What will happen to my garlic? Then, flooding. Will it hurt my garlic being under water? No snow cover. Should I mulch now? And, the questions went on.

Oh, if only I had the wisdom of Solomon.

### Super El Nino

This Super El Nino of 2015-2016 is the strongest on record. El Nino is the warming of the surface of the Pacific Ocean and it affects weather around the world, turning things topsy-turvy. The last Super El Nino in 1998 caused Ice Storm 98, a disastrous storm that caused millions in destruction and damage, knocking out power across Eastern Canada for over two weeks.



A mini Ice Storm 2016

Here in Eastern Ontario. we had no snow for Christmas, a mild January; several winter thaws exposing garlic beds, a record one-day snowfall in February, severe cold. an Ice Storm, and, as I write this, there's another Ice Storm on the way. Strange weather!

Branches down, one right on garlic harvest station. Who knows what spring will bring?

Following Ice Storm 98, we had heavy snows, a heat wave in March, much flooding, but our 4000-bulb garlic crop turned out to be one of the best in years. It's not shaping up quite the same this year.

### La Nina

Apparently, after El Nino dies down later this year, the old woman, la Nina, often follows it. La Nina also brings unpredictable weather, but by the opposite effect, cooling down the surface of the Pacific Ocean.

The up and down changing weather Flooding in the fall caused damage and inconvenience. No white Christmas this year across much of the land. Verv low snow cover during the coldest part of winter. Valentine's Day weather was cold enough to freeze even the warmest of hearts in parts of Canada. Quebec saw wind chills reach -46 C. Newfoundland saw 30 centimeters of snowfall and Ontario broke an astounding 17 records for low temperatures in one icy swoop.

Denise Machin of Courtenay on Vancouver Island sent a photo of her garlic a foot high in January!

Now, at the end of February, various parts of the country have exceptionally warm days. Nova Scotia recorded record highs with a "heat wave "of plus 17 degrees C. Out on the prairies, a balmy 12 degrees C in Regina in February, -- have they really changed the name to Saskatchewarm? Or is the hard freeze coming back? Southern Alberta has no snow cover whatever and mild temperatures this month.

Yes, it's a strange weather winter.

### Winterkill

Fluctuating temperatures with little or no snow cover are hard on perennials and overwintering crops like garlic. The chance of winterkill goes up. It's not the cold weather alone that does it. The damage occurs when the weather warms enough to start the garlic growing; then, a sudden drop in temperature kills the tender new growth.

Watch for garlic emergence in spring. If nothing shows, chances are that the fluctuating temperature took its toll. A garlic year to remember

No doubt, it will be a garlic year to remember. Some areas will be lucky and have bumper crops. Others will experience losses, and possibly total crop loss if winterkill is severe. From the flooding last fall, low-lying crops may experience drowning for lack of oxygen in waterlogged soil. And, the garlic that emerged and started growing last fall just may not be there this spring. Some garlic cultivars may prove to be more resilient to fluctuations than others. Who knows what else may occur? We'd like to hear about all different situations. This information is worth sharing with others. Send in any story you have now for the Spring issue. Stories from spring and summer harvest will be published in the Summer and Fall issues. Your story will help to know just how much effect that weather had on garlic across Canada this year. Years like this one are revealing about growing garlic in difficult climatic conditions. That knowledge is useful in helping to build a more successful garlic farm industry in Canada. Please share your story. Editor. IT MAKES HEALTHY BUSINESS SENSE

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Enclosure with Garlic News Issue #47