

# Community Assistantship Program

*...a program of the Center for Urban and Regional Affairs (CURA)*

## Value-Added and Scaling Up Local Foods: Navigating Regulations for Processing Local Foods in Commercial Kitchens in Minnesota

Prepared in partnership with  
Big Stone Products, Ortonville, MN

Prepared by  
Rachel Grewell  
Research Assistant  
University of Minnesota

2013

**CAP Report # 187**

*This report is available on the CURA website:  
<http://www.cura.umn.edu/publications/search>*

Center for Urban and  
Regional Affairs (CURA)

UNIVERSITY OF MINNESOTA  
Driven to Discover™

The Community Assistantship Program (CAP) is a cross-college, cross-campus University of Minnesota initiative coordinated by the Center for Urban and Regional Affairs (CURA). Funds for CAP were generously provided by the McKnight Foundation and the Blandin Foundation.

This is a publication of the Center for Urban and Regional Affairs (CURA), which connects the resources of the University of Minnesota with the interests and needs of urban communities and the region for the benefit of all. CURA pursues its urban and regional mission by facilitating and supporting connections between state and local governments, neighborhoods, and nonprofit organizations, and relevant resources at the University, including faculty and students from appropriate campuses, colleges, centers or departments. The content of this report is the responsibility of the author and is not necessarily endorsed by the Kris Nelson Community-Based Research Program, CURA or the University of Minnesota

© 2013 by The Regents of the University of Minnesota.



This work is licensed under the Creative Commons Attribution---NonCommercial-ShareAlike 3.0 Unported License. To view a copy of this license, visit <http://creativecommons.org/licenses/by-nc-sa/3.0/> or send a letter to Creative Commons, 444 Castro Street, Suite 900, Mountain View, California, 94041, USA. Any reproduction, distribution, or derivative use of this work under this license must be accompanied by the following attribution: “© The Regents of the University of Minnesota. Reproduced with permission of the University of Minnesota’s Center for Urban and Regional Affairs (CURA).” Any derivative use must also be licensed under the same terms. For permissions beyond the scope of this license, contact the CURA editor.

This publication may be available in alternate formats upon request.

Center for Urban and Regional Affairs (CURA)  
University of Minnesota 330 HHH Center  
301—19th Avenue South  
Minneapolis, Minnesota 55455  
Phone: (612) 625-1551  
E-mail: [cura@umn.edu](mailto:cura@umn.edu)  
Web site: <http://www.cura.umn.edu>

*The University of Minnesota is committed to the policy that all persons shall have equal access to its programs, facilities, and employment without regard to race, color, creed, religion, national origin, sex, age, marital status, disability, public assistance status, veteran status, or sexual orientation.*

## Executive Summary

### Value added and scaling up local foods: Navigating regulations for processing local foods in commercial kitchens in Minnesota

Rachel Grewell

**Background:** Brent Olson; farmer, county commissioner, and syndicated agriculture columnist recently opened a licensed community kitchen in conjunction with a town café in Clinton, MN. The impetus for this re-opening of the café and added resource of a community commercial kitchen is in response to challenges this small town faces in addressing food access, food production, and community business growth. The “Inadvertent Café” has received less of a response from local producers than expected. As a result Brent identified a need for a clear road map to successful use of the kitchen for both the community kitchen organizers and the community producers, specifically around MN food code regulations.

**Objective:** The objective of this project included creating a resource document for the community kitchen audience. This document was guided by input from the Clinton, MN farming, and local food community including identification of road blocks to utilizing the kitchen as well as brainstorming potential solutions to these barriers.

**Methodology:** Interviews with farmers, interviews with the Minnesota Department of Health, Minnesota Department of Agriculture, and a review of regulatory materials.

**Research Questions:** Interviews included questions probing the usefulness of a resource document like this. In what format would this information be most accessible to the community as a whole? What type of layout would be most useful to producers and community kitchen organizers? What products are grown in the state of MN and what type of clarification for processing purposes would be most helpful?

**Results:** The feedback received from the community as a whole was positive, indicating a need for more clarification of the regulations tied to processing in a community kitchen. The perceived barriers to attempting even a small scale processing business included complications in the food code, lack of time and resources to find the appropriate information to follow regulations, and misunderstanding in the community about the use and purpose of the kitchen.

**Next Steps:** An additional goal for this project was to produce a document that will not only be useful for Brent Olson’s commercial kitchen, but also for community kitchens throughout the state of Minnesota. One part of this outreach includes the publication of this factsheet in the Minnesota Institute for Sustainable Agriculture (MISA) handbook on Marketing Local Food. Plans also exist to turn this factsheet into a poster size resource to be hung in community kitchens. Everyone involved in this project, from farmers to agency representatives, is excited about the goal to reduce the barriers associated with utilizing a community commercial kitchen. Helping the local food movement in a new direction, toward processing and marketing, may very well push the movement into a more sustainable and profitable direction.

## Regulation Matrix

Processing Methods (non-exhaustive list)	MN Crops (non-exhaustive list) based on the MN Grown Directory	MDA Regulations taken from the Code of Federal Regulations (CFR)	Equipment Needed (see commercial kitchen map for key)
Blanching, Boiling, Roasting, Steaming	Apples, Beans, Asparagus, Beets, Blackberries, Blueberries, Broccoli, Cabbage, Carrots, Cherries, Cucumbers, Currants, Elderberries, Garlic, Grapes, Greens/Lettuce, Hazelnuts, Heirloom Tomatoes, Herbs, Kohlrabi, Melons, Non-Wild Mushrooms, Onions, Pears, Peppers, Plums, Potatoes, Pumpkins, Radishes, Raspberries, Rhubarb, Saskatoon berries, Soybeans, Squash, Strawberries, Sweet peas, Tomatoes	<p><b>Heat treated foods:</b> Potentially hazardous foods must be cooled from 140°F to 70°F within two hours. An additional four hours is allowed to completely cool the food product to 41°F. The faster foods pass through the "temperature danger zone" as they are cooled, the better. Blanched or cooked vegetables should be cooled and/or frozen quickly</p> <p><b>Quick cooling methods:</b> SHALLOW PANS (for soups, sauces, gravies, etc.) 1. Put a 2 inch layer of food in a shallow, stainless steel pan. 2. Do not cover. 3. Put the pan in a cooler where cold air can blow across it. 4. Cover the food after it has cooled. ICE BATH 1. Put the food container into an ice bath. 2. Stir the food every 30 minutes - - more often if possible. ADDING ICE INSTEAD OF WATER (to soups, stews, etc.) 1. Add only half the water before cooking. 2. After cooking, add the other half as ice. CHILLING WANDS OR PADDLES (for large containers) 1. Place the clean, frozen wand in the food and stir. 2. Use another rapid cooling method to finish, such as shallow pan method described above.</p>	Range, Oven, Food prep sink, Reach-in Fridge, Freezer & Ice Maker, 8
Butter	Apples, Beets, Blackberries, Blueberries, Carrots, Cherries, Cucumbers, Currants, Elderberries, Garlic, Grapes, Hazelnuts, Heirloom Tomatoes, Herbs, Kohlrabi, Melons, Mushrooms, Onions, Pears, Peppers, Plums, Potatoes, Pumpkins, Radishes Raspberries, Rhubarb, Saskatoon berries, Soybeans, Squash, Strawberries, Tomatoes	<p><b>Heat treated foods:</b> Potentially hazardous foods must be cooled from 140°F to 70°F within two hours. An additional four hours is allowed to completely cool the food product to 41°F. The faster foods pass through the "temperature danger zone" as they are cooled, the better.</p> <p><b>Canned fruit standards of identity:</b> The required soluble solids contents for fruit butter is not less than 43%</p>	Range, Oven, Food prep sink, Reach-in Fridge, Freezer & Ice Maker, 8

Canning, including: Jam, Jelly, Preserves, Spreadable Fruits, Pickles	Apples, Beans, Asparagus, Beets, Blackberries, Blueberries, Broccoli, Cabbage, Carrots, Cherries, Cucumbers, Currants, Elderberries, Garlic, Grapes, Greens/Lettuce, Heirloom Tomatoes, Herbs, Kohlrabi, Melons, Non-Wild Mushrooms, Onions, Pears, Peppers, Plums, Potatoes, Pumpkins, Radishes, Raspberries, Rhubarb, Saskatoon berries, Soybeans, Squash, Strawberries, Sweet peas, Tomatoes	<p><b>Heat treated foods</b> Potentially hazardous foods must be cooled from 140°F to 70°F within two hours. An additional four hours is allowed to completely cool the food product to 41°F. The faster foods pass through the "temperature danger zone" as they are cooled, the better.</p> <p><b>Relevant (MDA) canning regulations.</b></p> <ul style="list-style-type: none"> <li>• When canning a fruit or pickled food item, use a pH meter, calibrate it daily and measure the pH of each batch processed, pH must be below 4.6.</li> <li>• Keep a record of measurements and calibrations.</li> <li>• pH may change as the acids are absorbed throughout the canned foods. Check each batch two or three weeks after production</li> <li>• Store canned goods in a cool, dry, dark environment</li> </ul> <p><b>Canned fruit standards of identity:</b> The required soluble solids contents for jelly, jams and preserves, not less than 65%</p>	Electronic pH meter, Range, Oven, Food prep sink, Reach-in Fridge, Freezer, 8 & 3
Dehydrating/drying	Apples, Beans, Asparagus, Beets, Blackberries, Blueberries, Broccoli, Cabbage, Carrots, Cherries, Cucumbers, Currants, Elderberries, Garlic, Grapes, Greens/Lettuce, Heirloom Tomatoes, Herbs, Kohlrabi, Melons, Mushrooms, Onions, Pears, Peppers, Plums, Potatoes, Pumpkins, Radishes, Raspberries, Rhubarb, Saskatoon berries, Soybeans, Squash, Strawberries, Sweet peas, Tomatoes	<p><b>Pre-treat fruit:</b> with ascorbic acid, honey, or fruit-juice dip for best color and flavor. Blanch or steam vegetables to preserve color, texture, and taste. Correct blanching times will be listed in your recipe. Follow drying times exactly, removing about 20% of moisture. Test for dryness: Cut pieces in half. It shouldn't look moist and shouldn't be sticky. You should not be able to squeeze any moisture from the fruit. After drying, conditioning fruit is the process used to equalize moisture and reduce the risk of mold growth. To condition fruit: Pack loosely in covered jars. Let stand for seven to 10 days. Excess moisture is absorbed by the drier pieces. Shake jars daily to separate the pieces and check for moisture condensation. If condensation develops, dry again. Store in airtight containers so moisture doesn't rehydrate the product allowing microbes to grow. Dried foods last longer in cooler temperatures. Store up to one year at 60°F or for six months at 80°F.</p>	Range, Oven, Food prep sink, Reach-in Fridge, 8
Fermentation	Cabbage, Cucumbers, Onions, Radishes	<b>Equilibrium:</b> pH needs to be 4.6 or less	Electronic pH meter, Food prep sink, 8

Freezing/Flash Freezing	Apples, Beans, Asparagus, Beets, Blackberries, Blueberries, Broccoli, Cabbage, Carrots, Cherries, Cucumbers, Currants, Elderberries, Garlic, Grapes, Greens/Lettuce, Hazelnuts, Heirloom Tomatoes, Herbs, Kohlrabi, Melons, Non-Wild Mushrooms, Onions, Pears, Peppers, Plums, Potatoes, Pumpkins, Radishes, Raspberries, Rhubarb, Saskatoon berries, Soybeans, Squash, Strawberries, Sweet peas, Tomatoes	<p><b>Temperature:</b> Keep food at 41°F or colder at all times. The freezer must operate at 0°F or lower at all times. Thaw frozen foods under refrigeration (best) or in the microwave, or use them frozen (e.g., as with cooked vegetables and fruit pies)</p> <p><b>Time:</b> Foods prepared in the establishment: These food can be served for up to 7 days after PREPARATION if they are dated and stored below 41°F. Foods purchased in ready-to-eat form (such as sliced sandwich meat, hotdogs): can be served for up to 7 days after OPENING if they are dated and stored below 41°F.</p> <p><b>DATE LABELING</b> Label a food with its preparation date, if it is going to be held longer than 24 hours.</p> <p><b>FREEZING</b> This stops the clock, but does not set it back to zero.</p> <ul style="list-style-type: none"> <li>• Before freezing a food, label it with the number of days it was held after cooking or opening.</li> <li>• After thawing, the food can be served for the rest of the original 7 days.</li> <li>• If the food was not date labeled before it was frozen, serve it within 24 hours after thawing or throw it away.</li> </ul> <p>Fresh fruit and blanched vegetables can go into freezer- type, food-grade plastic bags or containers. Additional rules and regulations apply, if produce will be vacuum packed.</p>	Food prep sink, Reach-in Fridge, Freezer, 8, 9
Juice, Cider, Fruit Syrup	Apples, Beans Asparagus, Beets, Blackberries, Blueberries, Broccoli, Cabbage, Carrots, Cherries, Cucumbers, Currants, Elderberries, Garlic, Grapes, Greens/Lettuce, Heirloom Tomatoes, Herbs, Kohlrabi, Melons, Non-Wild Mushrooms, Onions, Pears, Peppers, Plums, Potatoes, Pumpkins, Radishes, Raspberries, Rhubarb, Saskatoon berries, Soybeans, Squash, Strawberries, Sweet peas, Tomatoes	<p><b>Heat treated foods:</b> Potentially hazardous foods must be cooled from 140°F to 70°F within two hours. An additional four hours is allowed to completely cool the food product to 41°F. The faster foods pass through the "temperature danger zone" as they are cooled, the better.</p> <p>Additional regulations may apply for the production of juice. Contact the Minnesota Department of Agriculture for specifics on your product. Dairy and Food Inspection Division, MDA: 651-201-6027</p>	Range, Food prep sink, Reach-in Fridge, 8, 4, 3, 2

Oils	Flax, Sunflower, Hazelnuts, Non-Wild Mushrooms, Soybean	<b>Heat treated foods:</b> Potentially hazardous foods must be cooled from 140°F to 70°F within two hours. An additional four hours is allowed to completely cool the food product to 41°F. The faster foods pass through the "temperature danger zone" as they are cooled, the better.	Range, Food prep sink, 7
Baked (multi-ingredients)	Apples, Beans, Asparagus, Beets, Blackberries, Blueberries, Broccoli, Cabbage, Carrots, Cherries, Cucumbers, Currants, Elderberries, Garlic, Grapes, Greens/Lettuce, Hazelnuts, Heirloom Tomatoes, Herbs, Honey Kohlrabi, Melons, Non-Wild Mushrooms, Onions, Pears, Peppers, Plums, Potatoes, Pumpkins, Radishes, Raspberries, Rhubarb, Saskatoon berries, Soybeans, Squash, Strawberries, Sweet peas, Tomatoes, Alfalfa Bales, Barley Grass, Buckwheat, Corn, Flax, Sunflower, Wheat, Wild Rice	<b>Heat treated foods:</b> Potentially hazardous foods must be cooled from 140°F to 70°F within two hours. An additional four hours is allowed to completely cool the food product to 41°F. The faster foods pass through the "temperature danger zone" as they are cooled, the better.	Range, Oven, Food prep sink, Reach-in Fridge, 8

The regulations laid out in this document are general guidelines to get you started. It is imperative that you call the Minnesota Department of Agriculture, Food and Dairy Inspection to discuss with a food compliance officer how you want to process your product. This is a free service, contact the MDA today: 651-201-6027.

Be aware you may need a Hazard Analysis Critical Control Point process if you; cure or smoke food, use food additives as a method to preserve food, or use a reduced oxygen method for packaging food. See MDA HACCP guidelines for more information: <http://www.mda.state.mn.us/licensing/inspections/meatpoultryegg/haccp-ssop-resources.aspx>

For nutrition facts and labeling information contact AURI (Agriculture Utilization Research Institute) a free service for residents of the state of MN: 218-281-7600

MDA/FDA exemptions exist for labeling if you don't make claims about your product and you produce less than 10,000 units of each product in a year and have less than 10 FTE employees. See <http://www.mda.state.mn.us/food/safety/basic-label-req.aspx> for more information

We strongly recommend that you get a food manager's certification: <http://www.mda.state.mn.us/food/business/~media/Files/food/business/dokhandbook.ashx>

You can find more information about allergens on the MDA website: <http://www.mda.state.mn.us/food/safety/food-ingredient-allergies.aspx>

For information regarding licensing visit the Minnesota Department of Health (MDH): <http://www.health.state.mn.us/divs/eh/fpls/>

Insurance options are available, you may need to look into individual insurance or a commercial kitchen insurance that covers your product.

For more information on how to start a food business in MN see: <http://www.mda.state.mn.us/~media/Files/food/business/startingfoodbiz.ashx>

# Commercial Kitchen Map

