

LOCAL FOOD SECURITY IN OKANOGAN COUNTY, WASHINGTON STATE

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This is an article on one particular county. But could be read for ideas on local food security in other places.

I love the Okanogan, the landscape, the forests, the shrub lands, the grasslands. I have a lot of friends there. At the same time there are things and people that I don't like. I would like us to all get along reasonably well and create a more vibrant local food economy.

Last winter I gave a short presentation on formal and informal economies at a meeting held at the Okanogan Grange which was organized by Peter Myers. In retrospect, I wished I had talked about the topic of food self-sufficiency in Okanogan County. So I was inspired to write this article for my friends.

Food security is a growing issue in today's world at all scales: global, national, regional and local. Communities throughout the USA and in other countries are looking at local food security issues and how to resolve them. National food security concerns are one of the biggest issues in world trade negotiations. "Dumping" of food had destroyed many local food systems worldwide. Never before has so much of the world been at the mercy of food imports. This includes Okanogan County. What can be done to improve local food self-sufficiency and hence local food security in uncertain times? That is the focus of this small article.

Most people would agree that a high degree of local food self-sufficiency is a good idea even in good economic times. It will make even more sense in bad economic times. Okanogan could be 100% food self-sufficient if necessary. At the moment, steak and apple pie would be the main items on the menu if we were cut off from the outside world. This article is about exploring what it would take for Okanogan county to achieve a high degree of food self reliance. Much of this would be applicable in other counties as well.

For those readers not familiar with the Okanogan. The county is located in north-central Washington State and is the largest county in the state. The county includes part of the North Cascades, the wide Okanogan valley and the Okanogan Highlands. The county is about 100 miles wide and 40 miles deep. It borders British Columbia. Average precipitation in the county is 12 inches in the driest areas and the more mountainous parts receive 25 to 45 inches.

Okanogan is currently an exporter of several food commodities, primarily apples and cattle. However if fossil fuels and other outside inputs were not available, than farm production would drop. Outside inputs are undoubtedly going to get a lot more expensive. Orchardists, farmers and ranchers have been going out of business in droves

for the past 50 years because of low commodity prices, high input prices and interest rates.

Statistics:

The following 2002 figures are from the USDA, Washington Agricultural Statistics Service.

Okanogan County population 39,444
14.4% Hispanic
11.5 % Native American

Value of Agricultural Production

Fruits \$110,490,000
Cattle and calves \$12,894,000
Other crops and hay \$3,852,000
Grain production \$1,424,000
Sheep, goats and their products \$311,000
Milk and dairy products \$58,000
Hogs and pigs \$52,000
Poultry and eggs \$43,000

Number of Head

Cattle and calves 43,602
Horses and ponies 5,084
Sheep and lambs 3,490
Layers 20 weeks old and older 2,395
Colonies of bees 3,246

Acreage of top crop items

Forage (land used for all hay and haylage, grass silage and greenchop) 34,112
Apples 17,752
All wheat for grain 9,763
Pears 4,045
Sweet cherries 2,581

Number of farms - 1,486

Average age of farmer - 55.7

Land in farms 1,241,316 acres (31 acres/capita)
Market value of production \$137,418,000
 Crop sales \$116,551,000
 Livestock sales \$20,867,000

Average of \$92,475 gross income per farming operation.

\$3,480 per capita

Current situation:

What % of food consumed in the county is grown in the county?

What % of the food currently produced in Okanogan County is consumed here? I assume almost all the commercially produced food in the valley is exported out of the valley.

I am going to estimate that around 90% of the county food supply is imported. The average bite of food consumed in the US travels over 1,300 miles and increasingly crosses international borders. The US has long prided itself as being the breadbasket of the world, but it now imports more food than it exports. What % of the food currently eaten in the county is from crops that could grow (and produce) in the county's climate zones?

Sources of the food consumed in Okanogan County:

- 1) Family and personal gardens.
- 2) Small CSA (community subscription farms)
- 3) Small market gardeners, berry growers, fruit growers who grow intensively on just a few acres with minimal mechanization (low external input).
- 4) County conventional farmers producing with a mix of outside and local inputs and mechanization.
- 5) Local scale meat, egg and dairy farmers.
- 6) Ranches with hundreds or thousands of acres of grazing land.
- 7) Wild foods, in and around towns and in the larger landscapes.
- 8) Imported from out of county.

Current status (my guesses) >> What I would like to see:

- | | |
|----------------|-----|
| 1) 4% | 20% |
| 2) .01%..... | 10% |
| 3) 1%..... | 20% |
| 4) 5%..... | 18% |
| 5) 4%..... | 10% |
| 6) 1%..... | 2% |
| 7) .01%..... | 5% |
| 8) 84.98%..... | 15% |

While not everyone would agree with my desired percentage of food self-sufficiency envisioned here, most people would agree we should at least head for the percentages in the 2nd column.

Growers need a fair return for their crops and products to enable them to survive and thrive.

Two scenarios:

- 1) Economic stability - Slow, gradual increase in local food production even though imported food is still available.
- 2) Economic collapse - Rapid forced dependence on local food because food production and transportation systems are greatly disrupted.

Let's look at some considerations of the 2nd scenario.

- 2) Economic collapse and reduction of outside food, fuel and inputs. This is not likely to happen all at once but over a period of years or perhaps decades.

Global population growth and a declining agricultural land base are on an obvious collision course. It doesn't take a crystal ball to see a disaster in the making. The affects are already being felt by many people elsewhere in the world, but not so much here in the USA. Of more imminent concern in the USA is the expected global devaluation of the dollar. The younger generations do not remember the food and gas rationing of WWII. What if we had food rationing again?

A new kind of "Victory Garden" will have to evolve.

Farmers who rely on tractors, parts, fuel, chemical fertilizers, pesticides and herbicides would produce much less or nothing without the outside inputs, especially the grain farmers and orchardists. Broad-scale grain crops would be most susceptible to fuel outages. Long-lived fruit trees could produce for years with minimal inputs though yields would go down and pest damage would go up.

A cutoff of energy would be the outside input that would hurt us the most. Gas and diesel for farm equipment is important but perhaps even more important is power to run irrigation systems. Many irrigation systems rely on pumps run by electricity or fossil fuels. I can grow food without a tractor, but I can't do much without irrigation water.

Hand tools are necessary parts of home gardens. There would probably be a shortage of hand tools without outside sources. Local smiths and woodworkers could increase local production gradually. A good selection of hand tools (gardening and other crafts) is one of the best assets a self-reliant person has. Access to land is another. Give me a small plot of land, seeds, hand-tools and irrigation water and I can grow my own food.

Irrigation. The Okanogan has a dry climate . Although there are special techniques for gardening without irrigation, the yields are much lower. Water is the lifeblood of our crops. The main irrigation system for the Tonasket area used to be gravity flow. In the 80s someone talked the farmers into switching to a pressurized pipe system which uses a lot of energy. I bemoaned that decision when it happened. There might come a time of high energy prices when this decision is regretted. Research needs to be done on how to

increase food production with less water. What are the most efficient irrigation techniques, crops and varieties? Where is water harvesting technically feasible. What are the environmental and legal considerations?

Fertilizer. Local substitutes for imported fertilizers would need to be developed. A lack of imported fertilizers (both chemical and organic) would be a big constraint to yields. Careful utilization of animal manures would go a long way. The demand and price of manures would go up. The less the distance, the cheaper transportation costs are. Biomass, chips, straw, forest litter, crop residues, processing wastes, yard prunings, grass clippings, spoiled hay, rotted wood and other organic material can be composted or applied to the top of the soil as mulch. All mulch gradually breaks down and contributes to soil nutrition. Compost making is a way to get a superior fertilizer. Compost teas are also helpful. Worm castings (and worm casting teas) provide high-value nutrients and protect against pathogens. Phosphorus is one of the elements most hard to come by locally. Fish and poultry wastes accumulate phosphorus.

Pesticides and herbicides cannot be produced locally for the most part. There are a number of botanical insecticides which can be locally produced.

Seed is one of the limiting factors to local food production. Almost everyone relies on vegetable seed packets from one of the big (or small) seed companies. There aren't that many seed companies. The only local seed company is the small, mail-order/internet, Good Seed Co. based near Chesaw. Only some of their seed is produced locally. Hybrids are beyond the scope of most local seed producers. Open-pollinated vegetable seed can be grown locally, but it would take years to meet local needs if outside seeds weren't forthcoming. Seed saving workshops are needed to increase local knowledge. The Organic Seed Alliance, based in Port Townsend, has staff that would come and give workshops. Things which are propagated by tubers are easier such as potatoes and Jerusalem artichokes. Grain farmers can save their seeds and most know how to do so. Some plants can be grown from cuttings. The knowledge and capacity to grow and graft fruit trees exists locally already.

Machinery and parts. If an economic collapse was sufficiently severe, machinery and parts would be expensive or not available at all. Local mechanics and tinkerers would be in demand to keep aging equipment serviceable.

Compared to most other counties in the US, the Okanogan would find it relatively easy to become food self-sufficient. This is because of 1) its large land base compared to the population; 2) a large degree of agricultural production already; and 3) a culture of food growing is dispersed throughout the population already.

Main food groups:

Vegetables. Meeting Okanogan county's vegetable production would be relatively easy to achieve.

Fruit Production. Okanogan is currently a large exporter of apples, along with some pears, sweet cherries and minor fruits. Devoting just a small % of this area to supply local fruit consumption would easily meet all local needs. The idea of importing apples into the county is obviously ludicrous, but I'm sure it happens. There would have to be an increase in species and varieties. People will buy bananas and oranges as long as they are available and affordable. During an economic depression imported fruit prices would drive many people to local fruit.

The BC Okanogan at one time supplied over 30% of all Canadian commercial fruit production. Large amounts of soft fruits, grapes, and vegetables are still produced, although development has reduced production acreages. Studying BC Okanogan agriculture will reveal more opportunities for the US Okanogan.

Grain Production. Okanogan grain acreage is small compared to the past. Sufficient quantities of most grains can be grown locally. Conventional grain production requires a fair amount of tractor fuel inputs. How to grow grain with less fossil fuel would be a question. Horse farming will become more economically viable as fuel prices rise. Suitable scale processing equipment would need to be acquired.

Berry production. Berries are eaten fresh plus there are many jams, jellies, and processed uses for berries. Berry production makes lots of sense at the home scale. Home gardens plus a number of small specialty berry farms could easily produce local needs.

Meat. There is a lot of cattle shipped out of the county and a lot of meat products shipped in. Meeting county needs for meat and eggs would require more small farms. Chickens for egg and meat production is one of the easiest animals that can be done on the family level. More mobile butcher units would enable more family and small-scale meat production.

Dairy. At its peak, Okanogan county had over 50 dairies and 7 creameries. When I first moved to Okanogan County in 1972 I worked on Ann & Leo Douglas' dairy. We milked 30 head of Jerseys and Guernseys. There were 5 dairies left at that time. In 2006, I think there is just one cow dairy in the county, plus several small, dairy goat operations. Almost all dairy products are imported into the county. The main obstacles now are government regulations and pricing. What can be done to encourage small dairies? What can be done to encourage more families to have a milk cow or milk goats?

Nuts. Chestnuts are a valuable starch food that can be grown in the warmer parts of the county. English Walnuts need the warmer sites also. Black walnuts and filberts are hardy in the zone above that. Filberts need short pruning and netting to protect the crop from bluejays. Hardy almonds and pecans are possible in the warmest areas.

Oils. Oils would be one of the more problematic foods to produce locally. Sunflower, flax, mustard, canola, safflower and cranbe are hardy oil crops but require small-scale, pressing equipment.

Sugars. Sugar is a main part of modern diet. US consumption is somewhere around 100 pounds per capita. There is a sugar beet industry in the Columbia Basin and there would be cultivars adapted to Okanogan production. The question is properly scaled technology and equipment. Corn can be grown also, but I suspect that corn to fructose machinery is not scaled to small production. Sugar substitutes would include fruit syrups and honey. Honey production could be increased a lot in the county but would take more beekeepers and careful management given the mite situation. Increasing food production and doing ecosystem restoration in the county would increase the floral resources available to honeybees.

Beer and wine production. There are several small pub breweries in the county. There is a large wine industry in the BC Okanogan. Enough grapes, hops, and malted barley could be easily produced locally to supply local needs(wants). The main challenges are legal. Home winemaking and home beer making can be done at the small, household level. Liquor production is not so easily done on a small scale and is illegal anyway.

Coffee/tea. Unfortunately there are no caffeine plants which can grow in the temperate north. It would be easy to meet local needs for herbal teas.

Nursery production. There are a few small nurseries in the county but most bedding plants, potted plants, bare-root fruit trees, ornamentals, etc are produced outside the county. A ramping up of local food production would call for more small, local nurseries.

Medicinal herbs. Okanogan could easily produce almost all of its needs for medicinal herbs. Pharmaceutical drugs and health care costs have risen greatly in the past decade. More and more people are being priced out of the conventional health care system altogether. 17% of the US economy is currently for health care. More people are switching part of their health care dollars to alternatives including herbal medicine.

Even if a lot of the current market for pharmaceuticals was shifted to herbs, it would be possible to meet demand locally. One of the few local examples is the 2-acre, Methow Medicine Garden near Twisp which was started and developed by this article's author over the past seven years (now run by Ancestree Herbals). The seeds and propagation material available from the garden could enable a fast expansion of small-scale herb production in the county.

Ways to increase local food security:

Gardening

Every county has it's dedicated gardeners. There is lots of gardening know-how in Okanogan county by Hispanics, old-timers, back-to-the-landers, organic growers, farmers, etc.

Native American and Hispanic food cultural systems need special consideration in Okanogan County.

Of the amount of time devoted to yard care, what % is for

- 1) food growing;
- 2) growing ornamentals, (flowers, shrubs, trees, ground covers, etc);
- 3) lawn mowing and maintenance?

What if 50% of the families and residents of Okanogan County had a food garden? They would produce a tremendous amount of food which would be consumed locally. Of course, yields are dependent on the size of the garden and the gardener's skill.

What % of county residents will have a food garden in the 2006 growing season?

What % of the Hispanic people will have a garden? I would assume that resident Hispanic families have the highest levels of gardens.

Edible ornamentals refer to plants that are attractive, colorful, fragrant, etc and also produce food. It is possible to have beautiful landscapes and produce food at the same time. One example is Valley Homes, a model development outside of Davis, California. The development included the planting of a large amount and wide diversity of fruits, nuts and berries into the landscape, as street trees, in yards and parks. They produce a large amount of food for the residents. Here in the Okanogan, I bet almost every kid could lead us to the wild fruit trees in alleys, vacant lots and hillsides near them. This wild food resource could easily be expanded 10-fold.

There are arguments against using fruit trees as street trees or in public parks because of liability, messiness, insect pests, etc. These all need to be considered in planning. There are many niches in the landscape where appropriate food-bearing plants can be used.

Lawns. Many lawns do not get much practical use. Lawns currently consume a lot of time, fertilizer, and irrigation water. Some lawns serve useful functions for young and old alike. Perhaps 10% of them. If 50% of the lawns were put into food gardens it would yield huge amounts of food. Lawn substitutes include native plants which require less inputs and less maintenance and hardy ground covers.

Yard organic waste is currently a large resource which is only partially utilized. Much of it is burned, sent to landfills or discarded. Beauty bark and wood chips are used to some extent in gardening in the county. If all of the leaves, prunings, weedings, lawn clippings and yard waste were wisely utilized in our gardening this would be a large input. Leaves raked up from parks is another valuable fertility resource.

Chippers. There should be an adequate number of chippers that can travel around towns and properties to chip wood waste wherever there is sufficient amounts to justify it. Smaller amounts can be locally centralized for chipping (block scale?) All chips from city public land should be made available to people or used in parks. Demand for chips is up compared to 20 years ago and an increasing amount is being utilized.

School Gardens. There is a growing movement nationwide to establish school food gardens and also to buy local food for schools. Locally there is the 1/2 acre "Classroom in

Bloom" at the Winthrop/Twisp school. A switch to more locally-produced and whole foods means a shift in menu and prep times for school kitchens. There are successful examples from other areas to study.

Local food for local consumption also can be applied to old folks homes, hospitals, senior centers and other public food establishments.

Wild foods. How much wild plant foods are collected and consumed in the Okanogan? Wild berries would likely be the biggest category. The Okanogan tribe relied almost totally on local wild foods in the past and some of these traditions are still alive. Wild food plants are much rarer today than in pre-contact times because tribal people carefully maintained and improved the wild food patches.

Serviceberry, chokecherry and elderberry are three native fruits which are still relatively abundant. Native root foods are a mere shadow of their former extent. Every culture of olden times (including the Okanogan) had a knowledge of starvation foods which could be turned to in tough times. Most cultures have lost this knowledge, particularly US modern culture. Few people know what plants are edible and how/when to harvest and process them. Even if you don't need the information for survival it is fun to know. I have studied wild plant foods for decades and am still an amateur. However it would be hard for me to starve to death around here. Native foods generally are much more nutritious than most of the food we eat. Some foods taste good, others are an acquired taste (take bitterroot for instance), and others taste horrible. Most of the starvation foods are in the latter category. First you eat all the good tasting foods.

Okanogan Tribal Knowledge. Incorporating indigenous land management with permaculture, restoration ecology and related modern methods would make it possible to see wild food abundance in the county increase dramatically. This is a big topic. Two books particularly pertinent to the Okanogan are:

* Ethnobotany of the Okanogan-Colville Indians of British Columbia and Washington. Nancy Turner. 1980. British Columbia Provincial Museum.

* Keeping It Living: Traditions of Plant Use and Cultivation on the Northwest Coast of North America. Douglas Deur & Nancy Turner. 2005. University of Washington Press. This new book draws on examples from the maritime northwest, but some of the information also applies in the Okanogan (US spelling). Okanogan is the Canadian spelling. The book has international relevance, as it describes the food production techniques and way of life for the cultures which lay between hunter-gatherers and agriculturists. A time when humans actively managed the landscape for food production. Fascinating and relevant reading. Some of this traditional knowledge and practices are still retained by tribal members and there is an upsurge in interest within the tribe as there has been for indigenous people worldwide. The amount of wild food plants in the landscape is at its highest in that long era of semi-cultivation. The amount of wild foods before that is smaller and the amount in modern landscapes is way smaller. Okanogan county saw a period of heavy overgrazing starting in the 1880s. In the 1920's a decade-long drought forced a drastic stock reduction. But by then the damage was done and much of the edible (for humans) food species were drastically depleted. It has never

recovered because the First People's land management systems were disrupted by disease, reservations, discouragement of speaking their native language, sending of the children to foster homes, racism, etc.

Public freezing facilities. Most towns have freezer locker space available for rent. Increasing the number of these facilities would enable more local food preservation.

Custom canneries. At one time there were 50 custom canneries in Washington. In 1975, there were only 3 left and I worked at one of them at Toppenish in the Yakima valley. Hundreds of people came every day with their fruit, vegies, salmon, what have you and filled up tens of thousands of cans. They stamped their number on them and the contents. We ran them through the canning process and they picked them up several days later. Small-scale custom canneries are possible (at least they were then). These canneries were reliant on a yearly supply of cans, an outside input. Is it possible to set up a custom cannery that could be based on reusable, glass, canning jars?

Solar dryers. Small-scale, local manufacturing of solar dryers would enable more food processing and storage at the family level with minimal fossil fuel inputs.

Root cellars are one of the lowest-tech, lowest-cost methods of food storage. How many homes have a root cellar?

It would be nice to have a number of small contractors who could add root cellars to existing homes. It would be nice to include root cellars as standard equipment in new home construction. Root cellars can be various sizes and can be retrofitted into crawl spaces and basements. Cooperative root cellars or commercial root cellars with arrangements similar to freezer lockers can also be developed.

Restaurants. Chain restaurants buy virtually no local food. Locally owned restaurants use some local food but overall I imagine that local food supplies less than 5% of restaurant needs. Setting up to supply local food to local restaurants would need special efforts. This is in the process of happening already to a small extent. In larger cities there are increasing numbers of special events to bring chefs and local farmers together. Some restaurants are starting to use local foods as a special draw to customers. This trend will grow much faster if current food delivery systems are disrupted.

A county-wide horticultural survey would reveal large amounts of useful information. What vegetable, fruit and berry varieties and cultivars have proven themselves locally? A questionnaire could be published in local newspapers. A street by street tree and shrub survey would tell us far more about the hardiness zones of the county.

Where are the best county-wide directories to agriculture/gardening resources? They should be identified, updated and be made more widely available. There already are networks of gardeners and farmers in the county. Master Gardeners is one of the main ones. There is the county extension service, the Natural Resources Conservation Service, garden clubs and others.

Farmers Markets. There are several farmers markets in the county. Twisp and Okanogan. Another useful addition might be a county-wide market which happens once a month and rotates between different towns.

CSAs. CSA is the acronym for Community Supported Agriculture and refers to subscription farms where buyers pay farmers a yearly fee for weekly deliveries of food (usually only during the growing season. Mostly vegetables, but some include other foods. This has become widely popular in the USA over the past decade. There are several in the county and there is the potential for many more. There are lots of different arrangements and different pricing. Do people help on the farm? Do they pick it up a designated stop spot? In some cases there are delivery CSAs who deliver direct to homes.

Food banks and local welfare systems which supply food to needy people could supply more local food. Government welfare and food stamp programs are increasingly cut from government budgets. Some counties now have gleaning programs.

One way to help jump-start new gardens is to publicly fund "garden installation crews". Trained gardeners come to someone's house and create a garden and plant it and leave it to the resident to maintain and harvest the garden. This can also be a for-fee service. Some people such as elderly or disabled need help at the set-up phase but can do the follow up work.

Some of the main ecological agriculture systems include:

- * Low-external Input and Sustainable Agriculture (LEISA)
- * Organic agriculture.
- * Permaculture.
- * Bio-Dynamic agriculture.
- * Traditional systems.
- * Bio-intensive gardening.
- * Agroforestry.
- * Analog forestry.
- * Keyline system of soil and water management.
- * Soil conservation.
- * Home gardening.
- * Wild gardens.
- * And many more . .

Low-External Input and Sustainable Agriculture - LEISA

LEISA is a term used for a syntheses of farming approaches which was developed in the 1980s and 1990s. It primarily focuses on food production in nations of The South. It was not strictly organic or permaculture but drew from both. It encouraged and incorporated local, traditional agriculture systems. One of the main ideas was to reduce non-local inputs to a bare minimum. Another main idea is to increase the soil (and land's) capacity to achieve and maintain high yields. Building a healthy, rich, fertile soil full of life. LEISA may be a word (or term) that is more widely acceptable than "organic" or permaculture.

A useful gardening technique (or set of techniques) is John Jeavons' "Biointensive Gardening". His book "How to Grow More Vegetables Than You Ever Thought Possible on Less Land Than You Can Imagine" has been translated into many languages and hundreds of thousands of copies sold. His school near Covelo in Northern California has trained hundreds of people from many parts of the world who have taken the training back to their countries. Biointensive gardening has been particularly well accepted in Russia, Mexico, Peru and Kenya as suitable for low-income people with few resources. Biointensive techniques are also useful for home gardens in the US. Here are several important components of Jeavons' methods.

1. One goal is to grow food on as small a land base as possible. Very high yields.
2. Gardens are grown in deep, double-dug, enriched beds.
3. Compost crops are grown on some beds with the goal being to grow almost all the fertility inputs in the garden itself.

Some bio-intensive techniques can be incorporated into hybrid systems that include conventional gardening, permaculture, wild food gardening and other garden techniques. The set of techniques is matched to the people involved and to the particular climate, land tenure, etc. No two gardens are the same.

How many farmers and acres would it take to produce the food for the county to be self-reliant? Take average per capita food consumption statistics for the US and multiply by the number of Okanogan residents. Add in chamber of commerce estimates of visitor days times consumption. Factoring in average yield statistics for each crop per acre would allow us to calculate how many acres of each crop are required. Of course, this would have to take local, dietary preferences into account and the likely changes as long distance, imported foods are replaced by local foods.

A local food production system would increase employment for local independent farmers and small scale processors. Farming and food production jobs are generally regarded as low status jobs in our current society. How can farming be made more rewarding, both financially and culturally? Banks and big companies tell us that we have to export and import to have a good local economy. Contrary to their advice, we are actually better off with a stronger local economy. The strangleholds of the outside economy will keep most people in its grasp until the system that supplies the imports breaks down. It will be a forced decentralization.

What does the future hold? Will agriculture and food growing continue to dwindle in the county or will there be a new upsurge? Will the current food economy continue to hum along smoothly or will there be massive shocks to the system? Will Okanogan be forced to be more self-reliant? Time will tell.

This paper is a brief look at the topic and is a work in progress. My hope is to add to, and refine this paper over time. I hope it will be useful to people in other counties who are thinking along these lines.

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Correspondence welcomed.

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PEAK FOOD

By now, most of us have heard of “peak oil”. Few people as yet are using the term “peak food”. If world oil production has peaked and begun the downward decline, what about world food production? I asked myself this question in early July. Upon researching this question my preliminary conclusion is that world food production peaked in 2004. A lot more details can be found in my recent Peak Food article at :
www.alamedashotsprings.com/peakfoodarticle.html

Resources:

Community Food Security Coalition
P.O. Box 209
Venice, CA 90294 •
Tel: 310-822-5410 Fax: 310-822-1440
Great website: www.foodsecurity.org/

The Community Food Security Coalition (CFSC) is a non-profit, North American organization dedicated to building strong, sustainable, local and regional food systems that ensure access to affordable, nutritious, and culturally appropriate food for all people at all times. We seek to develop self-reliance among all communities in obtaining their food and to create a system of growing, manufacturing, processing, making available, and selling food that is regionally based and grounded in the principles of justice, democracy, and sustainability. CFSC has over 325 member organizations.

Back in the 1970s, David Granatstein and others produced a publication on Okanogan county agriculture and what could be done to make it more sustainable. It will be a great resource for anyone who wants to look into this further. Granatstein is now the Director of Washington State University's Center for Sustaining Agriculture and Natural Resources, based in Wenatchee.