

## EATING LOCALLY AND SEASONALLY IN OUR NORTHERN CLIMATE - BY JANETTE HAASE

### 1. ENVIRONMENTAL CONCERNS - GREENHOUSE GAS EMISSIONS

2001 study by PowerSwitch U.K.

- 8 tons CO2 produced by a family of four through the food that they eat in one year
- 4 tons CO2 produced by that same family through the car that they drive
- 127 calories of energy to fly 1 calorie of lettuce from the U.S. to the U.K.
- 97 calories of energy to fly 1 calorie of asparagus from S. America to the U.K.
- 66 calories of energy to fly 1 calorie of carrots from S. Africa to the U.K.

Other numbers

- Modern agriculture requires 10 calories of energy to produce 1 calorie of food - almost all of it in the processing, packaging, storage, and distribution of that food
- Organic agriculture only slightly better at 9.5:1 - actual growing in less energy intensive but most organic foods just as packaged, travel just as far as conventional foods
- **Your backyard garden - ½ calorie of energy to produce 1 calorie of food - this makes sense**
- Avg pound of food travels 3000 km
- In past 60 years, oil consumption in agriculture has increased 80X while yields have only increased 4X

How can this unsustainable food system survive - cheap oil, cheap labour and a lack of any kind of real cost environmental accounting

2006 University of Waterloo Study

- 58 foods travelling an average of 4800 km
- What would happen if we produced these foods locally - within 250 km
- Reduce GHG emissions by 94%, would only need a 10-12% change in current agricultural land use
- In my opinion, lack of infrastructure is the biggest obstacles (abattoirs, mills, cheese factories, etc.)

### 2. EATING LOCALLY AND SEASONALLY

Local is what is grown or stored in your area - fresh from the garden, in cold storage, canning, drying, freezing. Of the storage methods, cold storage is the only one that does not have to take any energy

Cyclical approach to fresh food

- Some things available almost year round - potatoes, onions, garlic, carrots
- Others 5-7 months - salad greens, lettuce, spinach, beets, squash
- Others 6-10 weeks - peas, beans, cucumbers, tomatoes, corn

What can we reasonably expect to find in our northern climate

- Fruit, veggies, meat, dairy - including cheese, eggs, honey, maple syrup, some grains and legumes
- Of these, fruit and vegetables have the highest environmental footprint **by far** and they make up a huge percentage of what we buy

What is missing

- Oils, nuts and seeds, condiments, baking products, processed foods, most grains and legumes

## Seasonal veggies

Spring - garlic, Jerusalem artichokes, chives, peas, radishes, salad greens, spinach, overwintered veggies in the garden (kale, spinach, green onions, parsley, bok choy), leftovers from cold storage (carrots, onions, garlic), wild foods (nettles, wild leeks, fiddleheads) and sprouts made indoors

Summer - beans, cucumbers, tomatoes, peppers, corn, beets, lettuce, endive, fennel, green onions, herbs, salad greens, etc.

Fall - salad greens, lettuce, endive, green onions, beets, kale, spinach, tatsoi, carrots, leeks, swiss chard, onions, potatoes, garlic, etc.

Winter - squash, carrots, cabbage, turnip, parsnip, beets, potatoes, onions, garlic, leeks, sprouts made indoors

## Changing your diet to be more local and seasonal

- Cooking is definitely more time consuming - chopping, cleaning
- Lots of salads that use a wide variety of ingredients - summer and winter including beans, pastas, potatoes, meat, eggs, cheese and vegetables
- Fruit is definitely a bigger challenge - fresh berries, plums, pears, cantaloupe, grapes, peaches, apples in season
- Winter months rely on apples and frozen berries plus some dried fruit
- SET REALISTIC GOALS - don't try to do it all at once, 1 meal per week that is local and seasonal, find a source for local eggs, one thing at a time
- Do things with others in the community - potluck supper once a week, my workshop series lends itself very well to a support group
- Involve the whole family - especially kids = they really should be part of their food

## 3. HOW TO DO THIS

1. Buy local
2. Have a garden
3. Build a cold storage

### Cold Storage

- Allows you to eat vegetables that have stored earth's energy in their roots and leaves and to eat many of these fresh
- 50 - 70 square feet
- Cool, dark, 4-8C
- Damp sand for root vegetables
- Insulated,
- If you can't grow your own, order a supply of winter vegetables from a local farmer and pick up as late in the fall as possible

### The Garden

- Explained layout of the book, garden plans, timing charts, etc.
- Tools - a good fork, some watering equipment, a set of hand tools
- Size - 400-600 square feet is good to start - produce lots of spring, summer, and fall vegetables
- Compost - recommend 2 bins, add all kitchen and garden scraps plus some sort of manure (horse is good) as well as straw. Turn 1 time in the fall. Needs water, air, organic matter
- 2-4" per year of compost for a garden
- Planning the garden = wide beds, advantages and how to set them up

- What to plant - easy, productive in a small space, relatively free of pests
- How much to plant - very small amounts of everything, but plant often, how to do this
- How often to plant - showed garden plans in the book
- Transplants - showed schedules in the book, advantages of transplants over direct seeding
- Fall garden - explained timing and how it is tied to decreasing light levels - can grow lettuce, endive, fennel, radicchio, kale, beets, green onions, spinach, tatsoi or pac choi, salad greens - all will grow to maturity and hold their quality well into November and often December
- Frost protection - can get most things through -12C using two layers of floating row cover and flannel sheets, all the plants in the fall garden are frost hardy anyway
- Overwintering - growing things specifically to partially mature in the fall, covering with thick layer of straw and then uncovering in the spring. First spinach salad of 2010 was April 3 and the last one was Dec 10
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