

A close-up photograph of a pair of hands, likely of a person of African descent, cupping a small, vibrant green seedling with several leaves. The seedling is growing out of a mound of dark, rich soil. The background is a blurred, dark surface, possibly more soil or a dark fabric. The lighting is soft, highlighting the texture of the skin and the freshness of the plant.

**Growing Research into
Action: Creating a
Sustainable Food System on
Vancouver Island**

Indigenous Food Systems

Presented by

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Policy

**Science +
capital +**

**Natural
resources =**

**output cheap
food**

Food crops processed or
distributed by
multinational companies

Motive

Vertically-integrated
processing & distribution

Profit

Supermarket chains

**Food
availability =**

Consumer

Health

The global food system



Farmers and food producers

Food processors

RDC (**Regional Distribution Centers**)

Supermarkets – Retailers

Consumers

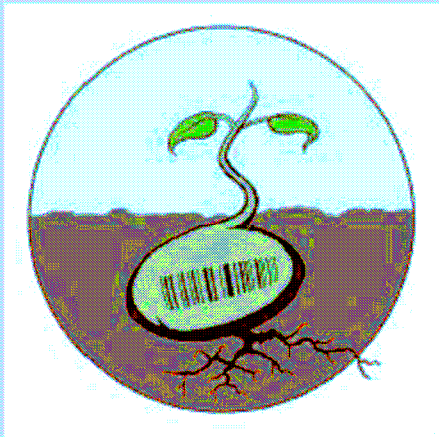
•Source: The bottle neck: the source of power (R. Patel (2007) Stuffed and starved Portobello Books

Farm supplies

- Seed companies
- Fertilizer companies
- Pesticide companies
- Animal Pharma companies

Seed companies

World's Top 10 Seed Companies



Company	2007 seed sales (US\$ millions)	% of global proprietary seed market
1. Monsanto (US)	\$4,964	23%
2. DuPont (US)	\$3,300	15%
3. Syngenta (Switzerland)	\$2,018	9%
4. Groupe Limagrain (France)	\$1,226	6%
5. Land O' Lakes (US)	\$917	4%
6. KWS AG (Germany)	\$702	3%
7. Bayer Crop Science (Germany)	\$524	2%
8. Sakata (Japan)	\$396	<2%
9. DLF-Trifolium (Denmark)	\$391	<2%
10. Takii (Japan)	\$347	<2%
Top 10 Total	\$14,785	67%

Source: ETC Group

Fertilizer Companies

World's Biggest Fertilizer Companies

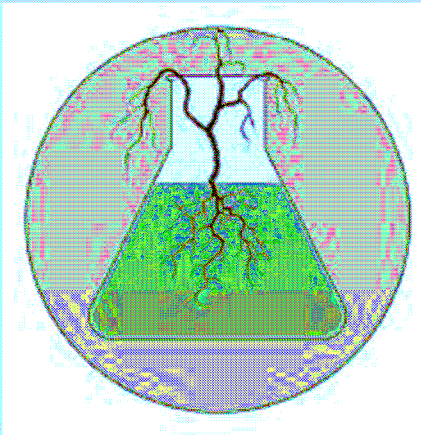


Company	2007 Net Income (US\$ millions)
1. PotashCorp (Canada)	1,104
2. Yara (Norway)	1,027
3. Mosaic (USA) (Cargill has 55% stake)	944
4. Israel Chemicals Ltd. (Israel)	461
5. Agrium (Canada)	441
6. K+S Group (Germany)	303
7. Sociedad Quimica y Minera (Chile)	165

Source: PotashCorp, 2007 .

Pesticide Companies

World's Top 10 Pesticide Firms



Company	Agrochemical Sales 2007 (US\$ millions)	% Market Share
1. Bayer (Germany)	\$7,458	19%
2. Syngenta (Switzerland)	\$7,285	19%
3. BASF (Germany)	\$4,297	11%
4. Dow AgroSciences (USA)	\$3,779	10%
5. Monsanto (USA)	\$3,599	9%
6. DuPont (USA)	\$2,369	6%
7. Makhteshim Agan (Israel)	\$1,895	5%
8. Nufarm (Australia)	\$1,470	4%
9. Sumitomo Chemical (Japan)	\$1,209	3%
10. Arysta Lifescience (Japan)	\$1,035	3%
Total	\$34,396	89%

Source: Agrow World Crop Protection News, August 2008

Food processors

World's Top 10 Food & Beverage Corporations

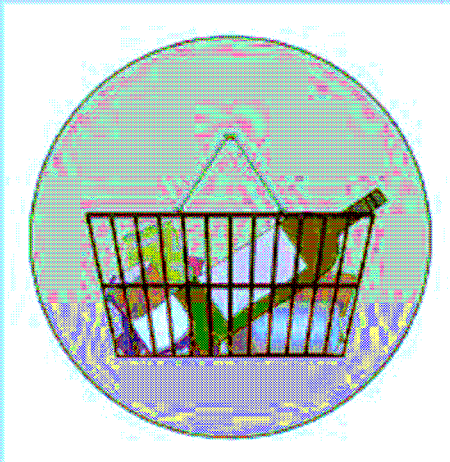


Company	2007 Food & Beverage Sales (US\$ millions)	Total Sales (US\$ millions)	Food & Bev as % of Total Sales
1. Nestle (Switzerland)	83,600	89,700	93
2. PepsiCo, Inc. (USA)	39,474	39,474	100
3. Kraft Foods (USA)	37,241	37,241	100
4. The Coca-Cola Company (USA)	28,857	28,857	100
5. Unilever (The Netherlands)	26,985	50,235	54
6. Tyson Foods (USA)	26,900	26,900	100
7. Cargill (USA)	26,500	88,266	30
8. Mars (USA)	25,000	25,000	100
9. Archer Daniels Midland Company (USA)	24,219	44,018	55
10. Danone (France)	19,975	19,975	100
Total Top 10	338,751	449,666	

Source: Leatherhead Food International, 2008

Distribution

World's Top 10 Global Food Retailers



Company	2007 Food Sales (US\$ millions)	2007 Total Sales (US\$ millions)	Grocery as % of Total Sales
1. Wal-Mart (US)	180,621	391,135	46
2. Carrefour (France)	104,151	141,087	74
3. Tesco (UK)	72,970	100,200	73
4. Schwarz Group (Germany)	58,753	70,943	83
5. Aldi (Germany)	55,966	65,251	86
6. Kroger (US)	52,082	73,053	71
7. Ahold (UK)	50,556	62,614	81
8. Rewe Group (Germany)	49,651	56,324	88
9. Metro Group (Germany)	49,483	73,538	71
10. Edeka (Germany)	45,397	51,272	89
Total Top 10	719,630	1,085,417	

Source: Planet Retail

Policy

**Science + local
knowledge +
capital +**

**Natural
resources =**

**Food reflects
social,
environmental,
and economic
costs**

Food produced,
processed or distributed
locally

Local
processing & distribution

Farmers' markets, community
supported agriculture

Consumer

Motive

**Quality: fresh,
taste, seasonality**

**Social values:
equity, animal
welfare, working
conditions**

**Environmental:
ecosystems,
biodiversity,
waste reduction**

**= Health: safety,
nutrition**

Strategy two: Indigenous Food Systems

Julia Davis, Emma Twidale (North Island College)

What do the knowledge keepers know about traditional trading practices on Vancouver Island?



Why this matters...

- Intergenerational transfer of history and learnings that is led by and of interest to first nations communities
- Utilization of this knowledge to teach, learn, and celebrate culture and heritage
- Build body of knowledge to utilize in resource management and issues of rights and entitlement



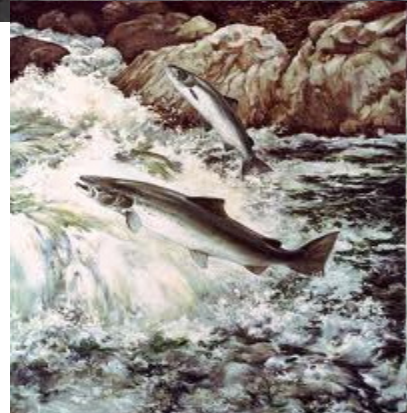
How many indigenous people?

- There are about 370 million indigenous people, most maintain traditional livelihoods
- They inhabit diverse ecosystems and corresponding livelihoods, as such they have diverse and complex food systems



What are Traditional Foods?

- “traditional foods” are foods that Indigenous Peoples have access to locally, without having to purchase them, and within traditional knowledge and the natural environment from farming or wild harvesting.



What are market foods?

- “market foods” are those foods that enter communities often through global industrially sponsored retail outlets, and which must be purchased



What is the importance of traditional foods?

- Contribute to food security, nutrition and health
- Help protect Indigenous Peoples' land and food resources
- Help sustain knowledge of Indigenous food systems
- Help protect Indigenous cultures and the well-being ecosystems



Indigenous food systems on Vancouver Island

- Before European contact traditional foods were abundant
 - Salmon, herring, a variety of shellfish, seaweed, eulachon
 - Deer, moose, birds
 - Roots (camas), berries

Indigenous food systems on Vancouver Island

- Foods procured were traded
 - Evidence of trade networks at least 2000-3000 years old and over distances up to 1000 km
- Food traded: eulachon oil, dried edible seaweed, blueberries, dried cakes of salal and other berries, edible camas, springbank clover rhizomes, and thimbleberry shoots

Food System change

- With European contact:
 - Indigenous peoples' control over and management of territories become limited
 - Market foods substitute traditional foods
 - Dislocation of indigenous peoples from their food systems



Indigenous food systems on Vancouver Island

- Though traditional foods are still consumed, they compliment rather than substitute market foods
 - Although B.C. has the lowest rate of obesity in Canada at just 11 per cent, the overall obesity rate for First Nations people in the province is 32 per cent and averages 36 per cent for those living on reserve. (Assembly of First Nations, 2011)
 - The rate of diabetes for the Aboriginal population is triple the rate for the general population in BC (BC Provincial Health Officer, 2002).

Indigenous food systems on Vancouver Island

Reconnecting Food, Land and Culture

Aboriginal Peoples in
South Vancouver
Island come together
around Traditional
Food Feasts to
discuss food security
in their communities



Importance of maintaining or reinstating Indigenous Food Systems

- Increase knowledge and application of traditional food practices for First Nations people
- Increase knowledge of traditional First Nations practices in non-Indigenous communities
- Increase promotion of traditional foods and medicines by health professionals



Importance of maintaining or reinstating Indigenous Food Systems

- Protect traditional hunting and fishing territory of Vancouver Island First Nations
- Establish process for protection of medicinal plants



Importance of maintaining or reinstating Indigenous Food Systems

- The sustainable management of traditional food systems can contribute to the health of ecosystems
- For Indigenous Peoples to maintain their cultures, environments and preferred food systems



- Some Indigenous peoples
 - still have distinct cultures, languages, religions, and social and economic organizations
 - strongly identify with particular culturally important foods, including methods of production and preparation, and customs observed in sowing, preparing and consuming them
 - Maintain strong connection with ecosystems that produce their food

Questions?



Question for you

In what other ways can
Indigenous food systems
contribute to a sustainable
food system on Vancouver
Island?

