

Show Transcript
Deconstructing Dinner
Kootenay Co-op Radio CJLY
Nelson, B.C. Canada

May 1, 2008

Title: Heritage Foods: Preserving Diversity II - Gardens of Destiny

Producer/Host: Jon Steinman
Transcript: Erika Steeves

Jon Steinman: And welcome to Deconstructing Dinner a syndicated weekly one-hour radio show and podcast produced at Kootenay Co-op Radio CJLY in Nelson, British Columbia. I'm Jon Steinman and, as usual, I'll be your Host for the next hour.

I do want to welcome two newcomers to the growing list of radio stations across Canada who are airing Deconstructing Dinner weekly, and those are CJSW Calgary, Alberta and CHUO Ottawa, Ontario.

Today's episode marks the second in an ongoing series titled *Heritage Foods: Preserving Diversity*, and on the show today, we feature a timely topic as it's that time of the year again when many of us are back in our gardens, working our farms, or at the very least, simply eating food. And that topic is seeds, and more specifically the importance of seed saving.

Maintaining and encouraging a greater seed diversity is of paramount importance on a continent where diversity has been lost to an industrial-agricultural system that thrives on mono-crops – where one or a few crops and varieties litter the land as far as the eye can see. Today's topic is also of critical importance as it has a very direct connection to the global food crisis taking place around the world today.

Helping form the foundation for this episode, we will meet one of a growing number of filmmakers who have chosen food security as the basis for a documentary film. With such an amazing selection of films to now be found on the topic, a month-long and weekly film series on food was hosted right here in Nelson, BC with the final feature film being the work of Vancouver filmmaker Joceyln Demers and his recent work titled Gardens of Destiny.

The film revolves around iconic seed saver Dan Jason of Salt Spring Seeds located on Salt Spring Island, British Columbia. On today's episode we will meet with Joceyln Demers, who I spoke with recently over the phone, and we will listen in on segments from the film and meet Dan Jason himself, along with Herb Barbolet of Simon Fraser University's Centre for Sustainable Community Development, and from Guy Dauncey, a well-known author, speaker and consultant on everything to do with environmental

sustainability. Guy is the recent author of *Cancer: 101 Solutions to a Preventable Epidemic*.

increase music and fade out

Before we launch into today's show, I do want to share some exciting information with you. As many of you are likely aware, Deconstructing Dinner has long been available through the internet as a weekly podcast, which seems to most often be accessed through a program known as iTunes. Now to date only one other Kootenay Co-op Radio show has also been available through iTunes and that is Canadian Voices, a one hour weekly feature that presents lectures by thought-provoking Canadians.

But with so many more Kootenay Co-op Radio shows that would be of interest to a larger audience, we have, since the early fall of last year, been undergoing the slow process of launching ten new Podcasts that can now all be found on iTunes. Right now as of May 1st the project is still in its infancy and so the posting of new episodes is slightly sporadic, but we would like to encourage you to check out the new shows and share with us your thoughts, your comments, your suggestions while we work towards launching a new CJLY website that will incorporate blogs where you can engage in dialogue following episodes of your favourite shows.

So the easiest way to access these new shows, for now, is again, through the program iTunes, which can be downloaded from itunes.com, and upon selecting the iTunes store, you can search Kootenay (k-o-o-t-e-n-a-y), and popping up on your screen will be a link to Kootenay Co-op Radio Podcasts.

Once in that folder you will see ten new shows ranging from News and Politics, Spirituality, Arts and Literature. The new shows include our daily public affairs programme Nelson Before Nine which airs three days a week; World Report, a half-hour commentary with Jim Terral on global issues; Open Wide, which is an exploration of different ways through which we can open our hearts and minds to achieve greater awareness; Fane of the Cosmos, a two-hour programme that examines the political, social, economic, spiritual and military aspects of cognitive liberty and the war on drugs. Also on the list is The History Hour with host Charles Jeanes who is passionate about the study of history to train the mind in critical thinking skills. For movie lovers, Ion Film is yet another new Kootenay Co-op Radio podcast where listeners can hear reviews of current theatrical and video releases and commentary on cinematic art and the film industry. Also on the list is Universal Traveller, a unique exploration of what host Yellow Star refers to as Astro-Cosmology, which is described as a unique blend of traditional astrologies as well as Mayan cosmology. And three more shows to also mention that are now available through iTunes: The EcoCentric, which focuses on current and critical environmental issues within the West Kootenay region of British Columbia and beyond; The Rank and File Voice, a current affairs show on workers rights, human rights and other controversial issues; and The Writers Show where host Holly Rubinsky speaks with Canadian writers and authors on the how-to's of the writing process.

And again, all of these Podcasts are now available through iTunes, and also, again, send us your comments, your ideas, and your suggestions to kcr@cjly.net

soundbite

So moving on to today's broadcast of Deconstructing Dinner, we will momentarily meet with Vancouver filmmaker Jocelyn Demers to help introduce some of the segments we are about to hear from his recent production, Gardens of Destiny.

But I first would like to share a little bit of background on the recent film series that took place here in Nelson throughout the month of April, which I was honoured to have MC'd, and the reason I want to share some of these details is because what became clear throughout the series, is that presenting films on the subject of food security, food localization, food sovereignty can have very positive impacts on a community. And this became quite clear as over the past month, both friends and strangers have approached me saying how eager they are, since watching the films, to now become involved in fostering more socially, and environmentally, responsible food systems. And so for any of you who are outside of the Nelson area who are interested in presenting a similar film series, I would suggest that there's no need to reinvent the wheel, and so posted on the Deconstructing Dinner website will be the program for the film series that was hosted here in Nelson, and that can be used as a model for a similar event to be held in your own community.

Here in Nelson the event was hosted and organized by the Kootenay Country Store Co-operative, which, as one of Canada's *only* co-operatively-owned grocery stores with a social and environmental conscience, is often referred to here on the show. And so each Tuesday throughout April, Nelson-area residents were invited to a light dinner where people could share food among friends and strangers and the films started shortly after. Each evening was hosted as a fundraiser for local not-for-profit groups working on food security projects, and over \$2,500 was raised throughout the four evenings. And I'll extend a thank you once again to all of you who came out to support the evening which raised funds for Deconstructing Dinner.

Now as for the films, I'm recommending every one of them, which include King Corn, where two filmmakers embark on a unique journey to find out how and why Americans have become saturated in corn. The second week featured The Real Dirt on Farmer John, a humorous but moving story of an Illinois farmer who cycles through the highs and lows of trying to preserve his family farm just west of Chicago. And the conclusion to the film provides a real sense of hope to those wishing to move beyond industrial agriculture. The third week featured a production by Vancouver's Craig Noble, titled Tableland, and this film took a more culinary and flavourful approach to food and did a wonderful job at celebrating the richness in flavour that can be found through local and fresh food shared among family and friends. And then finally, in the last week, and the film that forms the basis for today's broadcast, Gardens of Destiny.

And one last detail for those of you who may be eager to launch a film series in your own community, each feature film was preceded by a short film, and these films were part of an excellent DVD from the New York City based Media That Matters film festival, who in 2006 released a series of a dozen short films on food titled *Good Food*, and this was an invaluable tool that was used as part of the film series, and you can learn more about these short films and view them online at mediathatmattersfest.org. And, again, all of this information, including the full film series guide, will be linked to from the Deconstructing Dinner website at cjly.net/deconstructingdinner.

And I do also want to extend a special thanks to Destin Beneteau-Nelson. Destin is an 8-year old Nelson resident who became inspired by the film series to help raise funds for Deconstructing Dinner, and Destin, who collects returnable beverage containers, donated his bottle money to the program just this past week. And so I do want to again say a big thanks to Destin for helping support this not-for-profit radio show.

soundbite

In helping introduce the focus of today's broadcast, we can take a look at the recent headlines throughout virtually all media around the world that have been exposing the global food crisis, which is affecting the poorest and most vulnerable populations.

Now it's not new here on Deconstructing Dinner for us to place a critical eye on the media—we are, in the end, also part of the media. But this time, all I can say is wow. Since this program first began airing back in January 2006, we've been predicting this for years that it would take a crisis for the media to finally start paying attention to what's been happening to the global food supply since it was, well, globalized.

But as is also not so surprising, the media coverage of this crisis has done little to really question why this crisis has unfolded and perhaps what alternatives exist to what has clearly become an unsustainable global food system. Whether it be peak oil and rising costs per barrel, climate change, biofuel production, industrial agriculture and soil degradation, decreasing biodiversity, corporate control of seed, intentionally imposed food insecurity by the IMF and the World Bank, and the list goes on as to the perfect storm that has been brewing to lead to the food crisis of today. We now hear of riots taking place in more and more countries every week: in places like Egypt, the army has been ordered to start baking bread and in the Philippines the hoarding of rice has been punishable by life imprisonment.

So with the mainstream media having become more a form of entertainment than a source of investigative and objective reporting, it seems expected that it would continue down the same path it has for so long by asking the question – where's all the food aid? And of course, the Canadian government has promised \$230 million to the UN World Food program in response to this recent crisis.

And so while this perfect storm has indeed been brewing for decades, there is another perfect storm that has too been brewing between Canada's foreign and domestic policies,

the negligence of Canadian media, and the United Nations. And one of the most telling examples of this was an interview I conducted in January 2007 with Darrin Qualman, the director of research for The National Farmers Union (the NFU) based in Saskatoon. Darrin had authored an article for the Waterloo, Ontario-based *Alternatives* journal on the decreasing supplies of grain around the world in light of increasing demand. Most startling was his reference to the world having consumed more grain than was produced in six of the previous seven years. In other words, global food reserves were shrinking.

Now of course mention of this was not found in Canadian media until just recently when it became as much of a crisis as it is today. Now as was mentioned during that broadcast, in May 2006, shortly after this research was confirmed, the NFU sent a letter to the then Secretary-General of the United Nations Kofi Annan and the Director-General of the Food and Agriculture Organization (the FAO's) Jacques Diouf. The letter was titled "Rapidly declining global food supplies," and it requested that the UN and FAO immediately make public their assessments of current agricultural production and its ability to keep pace with a growing population. Now, again, this was back in May 2006, and this letter is linked to from the Deconstructing Dinner website.

So what was the response from the UN? Well, as Darrin Qualman indicated during that broadcast, it was long and confusing, and no warning by the UN was ever made.

And so now that the crisis is here, and the media scrambles to understand what to make of it, CBC Television, as expected, painted Canada as the hero, coming to the rescue with \$230 million for the United Nations World Food Programme. But as becomes clearer each week here on Deconstructing Dinner, Canada is no saint, and instead, all trends point to Canada as being one of the major culprits in this latest food crisis: whether it be the longstanding and aggressive support for industrial agriculture, or Canada being one of the world's leading emitters of greenhouse gases, or Canada's voracious appetite for cheap, plentiful, and well-travelled food, the list could go on as to how the very food system that almost every Canadian supports every day, has led to this food crisis that is pushing millions, if not billions around the world, into malnourishment, hunger, and sickness. So long as Canada's mainstream media continues to ignore that this country, its policies, and *our* way of life have been responsible for this, then the media is just as much to blame—if not more to blame—than everyone else.

And of greatest importance, we must not forget that these conditions of hunger—malnourishment, sickness, and growing inequalities between the rich and poor—are far from being a new crisis. This is a crisis that has waged for decades but has up until only recently been normalized to the point where it's hardly ever spoken of. We can only wait and see if this latest spike in world hunger does too become normalized. But of course we can only hope that maybe this will finally spark a global shift to more responsibly and ethically managed food around the world.

soundbite

Now one journalist who became fed up with the mainstream media's lack of interest to cover investigative and critical pieces on pressing environmental issues was Jocelyn Demers who left his post working for the CBC's branch of International Radio (RDI) to instead take on his own independent projects, including his recent work *Gardens of Destiny*, a 75-minute film featuring Dan Jason of Salt Spring Seeds.

Dan is one of only a small number of Canadian seed savers who have taken up the role of growing, saving, cataloguing, and distributing heritage varieties of seeds, many of which have been lost or threatened by the homogenous and industrial global food system. Located on Salt Spring Island between the mainland of British Columbia and Vancouver Island, Dan Jason has built a refuge that increasingly appears to be one of the most important projects currently underway that will help ensure the future food security of Canadians. Now, I say Canadians only because Dan Jason is not permitted to sell his seed across the border into the United States because of fears that his seeds will "contaminate their own varieties." And that's no joke! As if agricultural biodiversity is a danger!

Gardens of Destiny uses Dan's farm as a backdrop for a deeper examination of the food system and the importance of seeds, and the film visits with other figures involved in the food security and organic food movement—two of those we will hear from today.

But first we hear from Jocelyn Demers who spoke with me over the phone from Vancouver, and he describes his history as a journalist and how and why this experience led him to create a film about Dan Jason.

Jocelyn Demers: So a long time ago in the 80s and early 90s, when I was working at radio stations, if at the time I ever tried to push any environmental news it was considered completely ridiculous. And, in general, in the news rooms, environmentalists were considered part of an old mentality from the 60s and the 70s and environmentalists were suspected of being drug users, sometimes communists, and definitely not able to see what is critical and important in life for the population. So those guys, like me at the time, we were just a group of crazy extremists, according to the news room people, or crazy romantics, and our claims about the risks that were related to a growing economy and the risks of pollutions were dismissed all the time in the news room. So it was not the best place for me to work. So I was out of the journalist milieu for a long time when I decided to do something by myself. My interest for documentaries on the radio, cameras also, and portraits, led me to start to look for a hero, a character to build a good documentary, and I was very impressed at the time by the group of Canadian citizens who are working at preserving the life blood of the planet—the seeds.

Jon Steinman: While Jocelyn maintains a distaste for the stance the media had taken on environmental concerns, he does believe this stance has improved, but suggests it's still far from perfect.

Jocelyn Demers: The situation in the media is now a bit better too but still not perfect. We are in a very strange place, I think. We are emerging out of a long and ridiculous period in history of the commercial media where the pros and cons of global warming

were exposed, and it seems now that this false debate about global warming is almost finished in the media. That's a good point. The public knows that it has a problem of global change, but we lost so much time with the false debate. So people are now ready to hear about many other issues related to health and environment, and there is so much to say about what we put in our digestive systems, especially here in North America.

So the agricultural lands in North America have soils that are deeply degraded with chemicals and genetic pollution that the big conventional industrial farm system for the mass production of food is quite dangerous. Conventional corporate farming has taken too many risks with the basics of our food system and now we have everywhere in the developed world an epidemic of cancer.

Today it is easy to find in the blood of Canadian new-born babies up to 240 different chemicals. Do we know really about people who have died because of genetically-modified crops? Do we know about food crises created by extreme mono-crops around the world? Do we know why some countries have environmental courts of justice to deal with food production? Do we know in Canada that some countries have up to 40% of their agricultural lands for organic crops, while here in Canada it's only under 2%.

So I think that the Canadian public needs more information about organic agriculture in general, and of course we don't have the same debate, the same striking footage and pictures in the commercial media about organic agriculture compared to what we have about global warming.

Jon Steinman: Now one of these alternatives that Jocelyn speaks of is of course Dan Jason of Salt Spring Seeds. I will quickly mention that Jocelyn's film *Gardens of Destiny* can be ordered through the website for Salt Spring Seeds at saltspringseeds.com

And for the remainder of today's show, we'll listen in a selection of segments from the film, with this first one being the introduction.

Start of Garden of Destiny documentary

Narrator: On the Canadian West coast, there's a group of islands called the Gulf Islands. One of these, Salt Spring, is well known as a refuge for people seeking sustainability, away from the negative aspects of the modern world. Dan Jason lives on that island and is an organic gardener. He is also author of several books and the leader of the Seed and Plant Sanctuary for Canada.

One of the most important activities on Salt Spring island is the Ganges Saturday market. Here, vendors must make it, bake it, or grow it themselves. This is the essence of the market and reflects many of the island people's philosophy of life. At the market you will discover distinctive decorative arts, clothing, and jewelry. There is also plenty of organic food to go around and free, festive fun. If all this were not enough, it's a good place to meet local poets.

After this inspiring stop at the local market, I went further inland looking for Dan Jason. Dan received me in one of the gardens of the Seed and Plant Sanctuary for Canada, otherwise known as the Seed Sanctuary.

Dan Jason: Hi, you guys. Welcome to the Salt Spring Centre garden!

The Seed Sanctuary is a network of people across Canada who are trying to maintain our endangered and heritage varieties of all kinds of seeds, and it's based on Salt Spring Island, where we're growing out all the major food crops, and all the medicinal plants that we can possibly grow in Canada. We're keeping records of them here; we're maintaining all these varieties; and we're trying to get back-up collections everywhere across the country, in every province and every kind of climate zone. It's quite different than the thing that's going on right now in Norway, for example, and in other places where they're trying to create gene banks where seeds are just stored away in the event of some future disaster. But our whole approach is that that kind of disaster that we're putting seeds away for is really happening right now. The world is changing so fast that if we don't adapt, and if we don't keep on growing out seeds that are constantly adapting to the changing environmental conditions, then we won't have any seeds at all.

When you freeze seeds for however many years and keep them in the event that they'll be needed down the line, it forgets the whole notion that plants are adapting all along. Right now there's some things I've noticed just in the few years that I've been saving seeds, where conditions are so changed that you have to grow things in different ways.

There's a shed over there with all the garlic hanging because I know that if I put the garlic out in the sun to cure, the sun will actually fry the garlic. And it used to be that there was no problem that way at all, but with the change in the ozone, you can't do that anymore. It's like that for a lot of other things. The point being that we have to keep growing things out—it has to be a living gene bank—otherwise we could be in trouble. We won't have any seeds for the future.

The main base of the Seed Sanctuary is here on Salt Spring Island. Because I live here and because people know me, I've put it out to the whole community the importance of saving these heritage seeds, and we've kind of taken it on, really, as an island. Of all the people in the Seed Sanctuary so far, half of those are probably on Salt Spring. Everybody's doing all this for free; all we have to do is maintain the databases on our website and that's really the only expense. Everybody communicates with each other through email or phone or letters, and it's basically a communication system and everybody who loves seeds is doing their job of preserving those seeds and just staying in contact with each other. So it is quite incredible in that this whole project has nothing whatsoever to do with money.

Jon Steinman: And this is Deconstructing Dinner where we're listening to segments from the film Gardens of Destiny by Vancouver filmmaker Jocelyn Demers. Featured throughout the film is Dan Jason of Salt Spring Seeds, and in this next segment, Dan takes the viewers (and in this case the listeners) into his greenhouse.

From Gardens of Destiny documentary

Dan Jason: Well we're in the main greenhouse for starting the plants. From the beginning of February through March, April, May, this is just full of the baby plants before they go out into the field. And now it's kind of the leftovers. Mainly what we've got in here are peppers and basils and some tomatoes, and soon all of these will be out because this becomes the place where all the seeds are dried for the seed sanctuary. They come in and they're all on trays and they take another day or two drying, and then I take them out and thresh them and process them. So this is a two-purpose greenhouse: for starting things and for the whole drying process.

The equipment that you need to get the seed is pretty basic. I have a little air compressor that I blow the chaff away, but even with that I could just use screens and all it takes is screens and buckets, really. That's all the materials you need.

Narrator: Do you think that there is a myth about the efficiency of modern technology in agriculture?

Dan Jason: Let's face it. We've been saving seeds on this planet for 10,000 years and everybody's been doing a pretty good job of it. And we've had an unbelievable selection of all kinds of food and medicinal crops. That's been done without our so-called scientific advancement in terms of developing seeds. That whole thing is all about just ways to make money and to control the resource. It has nothing to do with the ease of saving seeds. Actually the opposite: science has increasingly brought us non-food that has no nutrition whatsoever and it's destroying all the great food that we've had forever and ever on this planet.

Narrator: Some observers say that you are very pessimistic. What do you think?

Dan Jason: Actually I think I'm extremely optimistic. I can see a future where we get back to small-scale agriculture, people working together on the land in harmony with everything else that's going on, on the planet, and growing food for communities, growing it in a much more sensible way. It's a beautiful occupation and many, many more people should be involved with the very basic thing of growing food for us so that we can all enjoy this planet. We're going to be forced to do this, so we might as well just start waking up to the fact that that's the way to go, instead of trying to exploit the entire planet with no thought of what's coming back whatsoever.

Narrator: Do you really think that people in the cities should move to the countryside?

Dan Jason: Well, I think that people in the cities should move back to the countryside, some of them, because for most people it's a horrible life in the city. I attest that it can be a beautiful life in the country and that many, many more people should have the right and privilege to enjoy that. I do think there is a movement afoot to—kind of like in the 60s, but in a much more serious way, where we realize we have to re-inhabit the earth. We

can't just live in the cities without any consciousness of where our food comes from. Mind you, we can grow a lot of food in the cities: There's a lot of rooftop spaces; there's a lot of open spaces around churches and big establishments where gardens can be grown. People are starting to do that on a pretty good scale already and I think that's just going to continue.

This basil, with this interesting heart-shaped leaf that's called Kilimanjaro Basil. This basil is a Greek basil, which is very, very pungent but has quite small leaves compared to the Kilimanjaro. This basil here, I always put the labels, is Genovese Basil, and this one is probably the most famous basil that is used for making pesto; it's great in combination with the olive oil and the Parmesan cheese and the pine nuts.

This is more characteristic, I'd say, of the basil that have these long, pointed leaves like that. But I don't know. There's probably so many basil that I've yet to discover, which I'm sure are just waiting for me.

Jon Steinman: And this is Deconstructing Dinner, a syndicated weekly one-hour radio show and podcast produced at Kootenay Co-op Radio CJLY in Nelson, British Columbia. I'm Jon Steinman. If you miss any of today's show, it will be archived on our website at cjly.net/deconstructingdinner.

Today's broadcast is the second in an ongoing series titled *Heritage Foods: Preserving Diversity*. In this next segment of the film Gardens of Destiny we move out into Dan Jason's gardens where we learn of one interesting variety of tomato that is the product of the selective breeding of a heritage tomato variety, and we also learn of a unique cross between a variety of broccoli and kale.

From Gardens of Destiny

Dan Jason: This tomato variety here is a great example of some of the really interesting things that we are maintaining now in the Seed Sanctuary. It's called Pollock tomato—Pollock named after Andy Pollock, who is a friend of mine now, he has become a friend since sending me this years ago and we've been communicating about it ever since, and he's made a selection of this Bonny Best tomato from a heritage variety in its own right, but he's been selecting for earliness and flavour for 35 years I think now. So this tomato is adapted to conditions of really cold weather and wet weather on top of that. It's one of my best early tomatoes—great, great flavour.

Narrator: What is this unusual coloured plant?

Dan Jason: It's a very unusual broccoli. This was bred by somebody in Oregon and it's a cross between a regular kale and a broccoli. The beauty of it is you can eat the leaves, which are as yummy as kale, and then it forms a big, quite fat head in the middle. That's broccoli head. If you cut that you'll get the broccoli and then it will form side shoots like regular broccoli. But this is a very unusual combination of things that you'd normally find in two different plants.

Jon Steinman: And this is Deconstructing Dinner. It was back on Part I of this *Heritage Foods* series where we first learned of Red Fife Wheat, a heritage variety that fed Canadians between 1860 and 1900 and will again be feeding people right here in the Nelson area where this show is produced, as it was that show that directly encouraged four area farmers to begin planting the variety as part of the community-supported grain project that was featured here on the program back in March.

Dan Jason of Salt Spring Seeds is one of a small number of seed savers who is growing out and preserving these unique grain varieties. And here again is a segment from the film *Gardens of Destiny*.

Dan Jason: This is a really special planting of grains. There are over 60 different old heritage varieties of wheats, barleys, oats, emmer and spelts, in just this patch here. They're all in patches of just about 20 feet long, and they've come from all around the world. A lot of them are special. They're not only wheats for turning into flour to make bread, but there's all kinds of wheats for eating whole and for sprouting and for wheat grass. Some of these are as old as 10,000 years old.

This is called the Utrecht Blue Wheat and it's one of the prettiest wheats. It makes a gorgeous display when presented with flowers. There's right in front of me here, there are three interesting, totally different kinds of grains. This is called Triticale and it's a cross between wheat and rye. This is Black Einkorn and even though the heads are green now, they're going to turn into a dark black colour. Just in front of me are Haldie barleys. They have these long golden awns, and if you rub the seed heads, the kernels come right out and they make a beautiful whole grain.

Jon Steinman: Yet another important message that *Gardens of Destiny* attempts to drive home is the comparative use of water between small-scale organic farming practices versus those of the large-scale industrial farms that feed most Canadians.

From Gardens of Destiny

Narrator: When we visit the countryside of Canada and the United States we see a lot of complex watering systems for big industrial farming. Do you think that there is an overuse of water?

Dan Jason: That has to be one of the jokes of this past 50 years because they've been using so much water that now there's a scarcity of water almost everywhere for the large agricultural projects, and a lot of the wells that used to be near the surface, they go down first a mile then three miles then five miles—they're running out of water in all the major industrial agricultural components of the country. If you're trying to water thousands and thousands and thousands of acres, that's a total different trip from watering a small farm where you have a few acres and you can develop all kinds of systems for maximizing your water production just by creating shade, through planting the right trees in the right places, or creating the areas where the water can gather. But if you're going to do

something on the scale of modern industrial agriculture, you essentially have to mine the water out of the soil, and if you keep on doing that the water levels, the water table, goes down and down and down and down, until you run out of water, which is what's happening everywhere in North America now.

The reason we put all this mulch hay around the tree is—well there are a few reasons: probably the most important being that when it rains, the rain will go right through the mulch and keep the soil moist. If there is a barrier of grass, the grass would absorb all that moisture to grow, and this way the actual tree gets all the benefits of the rain. And also all the organic matter that gets added to the soil as we keep on applying mulch around the tree means that the tree will be fed with natural fertilizer.

Jon Steinman: So now that we've received a taste of the gardens at Salt Spring Seeds and the plants that Dan Jason cultivates, the film then takes viewers into the seed bank itself where the final product from each season ends up. And as is seen quite clearly in the film, the size of the room in which the seeds are stored is tiny, yet the importance of what's inside is no doubt significant.

From Gardens of Destiny

Dan Jason: This is action central for the seeds, and you can see how little space seeds take up. There are thousands of seeds on each of these small containers, for example, of peppers and lettuces and tomatoes. Even those little vials have thousands of seeds, and the only seeds that take up any amount of space are the beans, some of them are over there. In this small room represents most of last year's harvest—all the seeds that I have left after sending out seeds this year. But with all the different varieties here, there's probably close to a thousand different varieties in this small room.

Narrator: Is it complicated to harvest and store organic seeds?

Dan Jason: Gathering seeds is not complicated; it's really, really simple. People have been doing it for thousands of years and it's just a matter of letting the seeds be the completed part of the cycle of the plant. The plant just goes on until it produces seeds and then you just have to figure out what the seeds are, which is usually pretty obvious, and then how to gather them, which is usually pretty obvious too if you think about it. Some of them can just be plucked and some of them can just be shaken into a bucket. The only thing to worry about is to be sure that they're dried thoroughly and then to have an appropriate container where they stay dry.

Narrator: And these seeds are alive?

Dan Jason: These seeds are all alive at this moment. There's an incredible amount of life here. Sometimes you'll hear about the astrological perfect time to plant seeds, but it's kind of funny because seeds don't ever stop being alive unless you do the terminator technology or something like that. Seeds are just waiting for the proper conditions and

then they're even more alive and they get growing. But everything here is totally alive. I know that all these seeds would germinate if I planted them.

Jon Steinman: And a reminder that Dan Jason's seeds can be ordered through the website for Salt Spring Seeds at saltspringseeds.com.

Sprinkled throughout the film *Gardens of Destiny*, filmmaker Jocelyn Demers shifts the documentary over to a selection of individuals who lend their thoughts on why the work of Dan Jason is so important. Two of these people are Guy Dauncey, a Victoria, British Columbia-based author and speaker on anything to do with environmental sustainability and health. He recently authored the title *Cancer: 101 Solutions to a Preventable Epidemic*. And the other voice we'll hear is of Herb Barbolet who has lent his voice to *Deconstructing Dinner* on a few occasions. Herb is one of the founders of Vancouver's FarmFolk/CityFolk and is currently with Simon Fraser University's Centre for Sustainable Community Development located in Burnaby, British Columbia.

From Gardens of Destiny

Narrator: For example, is it really true that organic food tastes better than non-organic?

Guy Dauncey: I mean anyone knows the difference between a fresh organic strawberry picked in June versus a square cardboard California strawberry: the one is deliciously wonderful, the other is like cardboard.

Herb Barbolet: Well, taste is obviously a very personal point of view and, for me, whenever I taste an organic product, it's almost always better, more flavourful, and better tasting than any comparable commercial product. I think most people have found the same thing, and the growth of Farmer's Markets and the growth of local food systems have been testimonial to the fact that people like the taste of organics. Clearly, when things are grown more locally and when things are grown with more care for the soil, they do have more flavour because they have more nutrients, because they've travelled less distance, because they've been processed less, and that all adds up to taste.

Jon Steinman: Adding to greater flavour, the work of Dan Jason is also encouraging greater genetic diversity within the food supply. In this next clip, Guy Dauncey supports such efforts as it's this very lack of genetic diversity within the current industrial agricultural systems that is leading to pesticide resistance.

From Gardens of Destiny

Guy Dauncey: The point about genetic diversity is that it allows – all that genetic diversity was created by nature for very good reason. If a pestal fungus comes through a field, with the full diversity, it will never take out more than 10%. And so even for organic growers, you've got much more protection against the natural pests and fungus that are in the world, with diversity. As soon as you have one species only in a crop, if you get a variant pest it can do a lot of damage. There's another point linked to that.

Before we had mechanized farm machinery – if you're cutting the grains, cutting the crops, it doesn't matter how high the corn is, because you're going to cut it anyway. As soon as you bring an artificial threshing machine in, everything has to be the same height. So they chose the plants that were a certain height only, and at that point onwards they started eliminating genetic diversity. Because if they're too short they miss the harvesting machine; if they're too tall they chew it up. Right back into the 1700s, we started the problem when we applied mechanical – I'm not saying we should not have mechanical harvesting because it's a long way to go back, but we need to feed back in the genetic diversity. Nature gave us genetic diversity for a really good reason. It's relevant to each particular ecosystem where it's evolved, for good reason. And we're making ourselves very vulnerable if we just get down to a few limited varieties, especially when the pests are evolving very rapidly to defeat the pesticides.

Jon Steinman: Now it's this rapid evolution of pesticide resistance that Guy Dauncey also indicates is what has led to monster pests, and he provides a common sense and effective explanation of what happens when the same pesticides are used over and over as we've now been doing for decades.

From Gardens of Destiny

Guy Dauncey: We don't know what new monster pests we're brewing. We're accelerating the evolution of the pests so fast by applying the pesticides. Because you can kill 99% of the pests with your pesticides, and a 1% lives, it's resistant, it passes on its genes to the next generation and now they're all resistant. And now you've got to use more chemicals. It's a treadmill that goes nowhere except trouble.

Jon Steinman: As mentioned earlier, Guy Dauncey most recently authored the book *Cancer: 101 Solutions to a Preventable Epidemic*, and in just a moment he'll share some of his findings from the research that went into that book. But first we can listen in on another segment from Gardens of Destiny featuring Dan Jason, as it's in this clip we hear him speak of the interrelationship of medicinal plants and food.

Narrator: Is this the plant that helps those who suffer from cancer?

Dan Jason: This plant looks as though – it's quite famous as a liver and stomach tonic and it's very, very powerful. A friend of mine was told that he only had a few weeks to live and he wanted to know – he'd done some research on milk thistle seeds and he wanted to know if I had any seeds. And when I gave them to him, he started chewing them daily and he ended up living many, many more months than the doctors were predicting. But even though there are a lot of great medicinal plants for things like cancer and many other things, it's been found lately that organic food itself has really great properties in terms of fighting cancer. These are not found in conventionally-grown agricultural food.

This is a milk thistle that has already gone to seed, and normally it's a little bit higher and you have to be careful when you're plucking the seed. But you just come down over the top and then you grab the seeds and pull and that's how the harvest happens.

Narrator: So what you do with that?

Dan Jason: You actually can chew the seeds just as they are, without the fluff on though. The fluff comes easily off if you rub it. Otherwise just rub the fluff and then I put the seeds away and that's my stash of milk thistle seeds.

Narrator: Is this what you call your non-corporate cancer medicine?

Dan Jason: You got it! And here lower down is cilantro, which is also called coriander. It's usually called coriander when you're talking about the seeds and cilantro when you're talking about the leaves. Most people know it's very good in cooked dishes, but it's also quite effective medicinally to encourage appetite. It's well loved by bees and insects, as you can see there's some buzzing around now.

This here is calendula, and it's a very famous medicinal plant used especially for skin conditions, and it's also used in salads. It's probably the best known flower to be used with your green salad. You just pluck the petals and sprinkle them and add a little bit of orange to your greens.

Jon Steinman: And this is Deconstructing Dinner where we're listening to segments from the film *Gardens of Destiny* by Vancouver filmmaker Jocelyn Demers. That last segment was of Dan Jason of Salt Spring Seeds. Continuing on this same thread of food and health, here again is Victoria's Guy Dauncey addressing why organic food helps prevent cancer, and touches on a topic that was first introduced to Deconstructing Dinner back in 2007 as part of our *Growing Up Organic* series.

From Gardens of Destiny

Guy Dauncey: Let me put this in context. I'm currently co-authoring a major new book called *Cancer: 101 Solutions to a Preventable Epidemic*. And it's primarily about removing the causes of cancer—chemicals, pesticides, the environmental causes. While researching the book I was told about some stunning new research being done in Britain on the connections between cancer and organic food, like why organic food defends us against cancer.

The science starts like this. It starts with a professor of drug development back in Britain called Gerry Potter, who is a full pharmaceutical specialist who discovered that every cancer cell has an enzyme in called CYP1B1 that is doing nothing, and he was puzzled by this. So he developed a drug that would trigger it, and when it's triggered it attacks the cancer cell and the cancer cell alone. So then he thought, Well, so the drug is under development and will reappear in 15 years. Then he thought, If the enzyme is there, there must be something in nature that triggers this. So he searched in food for something that

would trigger it. He found it in red grapes, a product called Resveratrol, which will trigger the enzyme to produce a substance called piceatannol, which attacks the cancer cell and only the cancer cell. No other parts of the body. In that sense, it's the holy grail of cancer research.

He then started looking for that same substance in other plants and couldn't find them anywhere. This was a mystery. Why was this product not in all plants? Then they started looking in organic plants and they were everywhere. Then he thought, Why is this substance only in organic plants and not in the non-organic? And the logic is very clear because when plants are attacked by pests and fungus, they've learned to defend themselves. So over millions of years, unless they defended themselves, they wouldn't be able to pass their seeds on. So part of the genetic heritage of the plants is a natural defense. One of the defenses they develop is a compound like Resveratrol, and they've now found almost 50 varieties—they call them Salvestrols together. When we eat the plants that have defended themselves against pest and fungus, we eat the Salvestrols. The Salvestrols in turn trigger the enzyme in any tiny cancer cell to produce the piceatannol that attacks the cancer cell. But now imagine that you're spraying plants with fungicides and pesticides. So the plants shrug their shoulders and never are exposed to fungus so they never develop their defenses. All non-organic food is deprived of what may be nature's most important defense against cancer. When you think about it that way, it's so natural.

There's also research that organic food has 30% more antioxidants in it. Antioxidants will attack the free radicals in the body and go after them. For the same reason, antioxidants are part of the plants defense systems. Organic food has more Vitamin C in it for the same reason. Vitamin C is a type of antioxidant that also is there to defend the plants. And then it's such a simple idea that you realize that all non-organic food is junk food because it's deprived of the fundamental life protecting mechanism that nature evolved over millions of years. We wouldn't be here as healthy bodies if we hadn't had successful evolution of our bodies over millions of years, always eating plants.

Jon Steinman: And that was Guy Dauncey. And in closing out the segments from the film Gardens of Destiny, this last clip is again of Simon Fraser University's Herb Barbolet who expresses his thoughts on why Dan Jason's work is so important.

Herb Barbolet: I think what Dan Jason has done has been extraordinary. What he has done is awakened a whole new generation and a lot of the older generation of people to the fact that we're losing our seed diversity; we're losing the life blood of the planet. He's awoken people to the fact that corporations have been patenting seeds, that corporations have been buying up seed companies, and he's been one of the leaders in the movement to re-introduce cultivars, old varieties, heritage seeds, back into our culture.

What I think is essential is that he, and the hundreds of other people across the world that are doing this work, wake up enough people and wake up governments to the fact that this has to be done on a large scale. The lack of support for global seed banks, the loss of seed banks in the form of Soviet Union and elsewhere, is jeopardizing future generations

at the expense of us having cheap food for a very short period of time. I think that Dan is creating a wake up call. It is not enough that we have an underground economy in seed exchange; it's not enough that a lot of people are beginning to save their own seeds and that they're exchanging seeds. This has to become the mainstream, and I think what Dan and other people like him have done is to start to educate people so they become aware, so that they can make the demands on governments and on international organizations to start to re-introduce all of these varieties.

Jon Steinman: And that was Herb Barbolet of Simon Fraser University's Centre for Studies in Sustainable Community Development.

We've been listening to clips from the recently released film *Gardens of Destiny* by Vancouver filmmaker Jocelyn Demers. The film is available for order through the website of Salt Spring Seeds at saltspringseeds.com, and Jocelyn can be contacted for more information and screening rights by sending him an email at demers276@hotmail.com, and this information will also be posted on the Deconstructing Dinner website at cjly.net/deconstructingdinner. There are two upcoming screenings to report with the first being May 4th on Salt Spring Island at the Fritz Movie Theatre and then on May 16th in Vancouver at the Vancouver Public Library.

Jocelyn is currently researching his next film on the topic of Red Fife Wheat.

And in closing out today's broadcast, I'll leave you with one last segment from my conversation with Jocelyn Demers.

Jocelyn Demers: I am not trying to tell you that *Gardens of Destiny* has a Hollywood style. So if you want the facts and you want to listen to some passionate activists, scientists, and how a garden can be a source of prosperity and sanity—all that in 75 minutes—I think you should watch *Gardens of Destiny*. So the best positive comments about *Gardens of Destiny* was probably from a lady in Alberta who lives on a farm. She lived on a farm when she was a kid and she told me that it should be mandatory for all citizens in North America to watch that documentary. That was probably the best comment I remember.

ending theme

Jon Steinman: That was this week's edition of *Deconstructing Dinner*, produced and recorded at Nelson, British Columbia's Kootenay Co-op Radio. I've been your host Jon Steinman. I thank my technical assistant Doug Farquharson.

The theme music for Deconstructing Dinner is courtesy of Nelson-area resident Adham Shaikh.

This radio program is provided free of charge to campus/community radio stations across the country, and relies on the financial support from you the listener.

Support for the program can be donated through our website at cjly.net/deconstructingdinner or by dialing 250-352-9600.