



INSPIRATIONS VEGETABLE SEEDS

Newsletter September 2012

Man does not live on what he eats, but what he digests.
Alexandre Dumas "Le grande dictionary of cuisine" 1873

Welcome to Inspirations seeds www.vegetableseeds.net.au for cool growers. I have been in the Horticultural industry for over 30 years having worked in the UK and Australia in Colleges and business. In this first newsletter we are going to discuss region , commercial seed companies so you can look them up on the web, and begin to look at how professional horticulturalists select vegetable varieties (more of this in more detail in future newsletters). We will touch on some important traits of some vegetable varieties which will explain why these work well in cool climate regions. This will help us home gardeners select good strong high yielding yummy vegetables. Please remember this information is FREE, it will help you to grow good vegies! To begin we need to look at what a region is, from the horticulturalists view point.

The World as a region.

The home gardener doesn't have a lot to do with this level, but we need to have an understanding of it, as will be seen later when we look at commercial seed catalogues.

The best way to view this, is through the eyes of the big corporate companies in the seed World, these guys are at the top of a competitive World pyramid. There are only a handful of these and they dominate World primary agriculture, they are powerful and many farmers cannot operate without them. Many are worried that these businesses limit choice, destroy or buy out the competition and promote the juggernaut of Genetically modified organisms (transgenic crops).

To evaluate the above I would strongly recommend reading the following books: "Beyond Organics" by Helen Cushing, 'How to grow your own vegetable varieties' by Carole Deppe, "Growing vegetables South of Australia" by Steve Solomon, "The Big Picture" by David Suzuki and Dave Robert Taylor, and "Legacy – an elders vision for our sustainable future" by David Suzuki. Magazines called "Horticulture Week" UK publication. 'NewScientist' and 'Nature' magazines are also worth investigating.

The corporate giants say that with growing population they provide seed to feed the World, develop new varieties, research crops, have the best University graduates working for them, draw on vast seed collections, have the ability to use new technology in media and marketing when releasing or promoting new varieties, clean seeds on a huge scale, and distribute seeds on a Global scale, as well as employing many people, they would also argue that they have seeds for every growing region that is economically viable, including cool climates. These guys are professionals, but what if we don't want to get seed from these companies?

When sourcing seeds It is paramount that we have a freedom of choice, a basic human need, This is where the important parts of the middle and bottom of the pyramid help our communities, poorer farming regions and us the home gardener, and many other interested parties.

To most of us it seems a safe comfortable consumer World which is in unchanging perpetual motion, but all business relies on growth. Powerful business men and Women know that all growth is finite, this is a good thing as it enables business to change and adapt, it is important to realise this so that we can see changes in the business World made by decision makers and assess how this could affect us, The industrial revolution is firmly implanted in our psychi but we have to accept that we are moving on rapidly into a new era, and have been for at least the past 30 years, for instance in the move towards solar energy, electric cars, agricultural production changing due to climate change, water shortage, peak oil, Industry now embracing biodiversity, manufacturing adapting to changing markets, mass migrating populations, permaculture, biosecurity etc. This may sit uncomfortably with many, but it is true. I would strongly recommend having a look at the David Suzuki foundation on the net.

We are not involved in the top of the pyramid, up here the corporate bosses need to look down at what is happening so they can run their operations, we home gardeners are interested in what happens in the middle and at the bottom of the pyramid.

The middle of the pyramid is very busy and complicated with many smaller companies, researchers, seed cleaners, farmers, horticultural colleges giving information to the top and sideways and to each other, often they cross over in their businesses and educational facilities and know what each other is doing in the industry, this is mutually beneficial to all their businesses.

Specific regions in the World for seed production take place in, for example, Japan, America the skagit valley, the UK in the fen lands, Australia Lockyer valley, and Tasmania in Richmond and the North West where companies rent or own agricultural parcels of land for trials and production and growers supply seed for distribution all over the World, including cool climate regions.

Finally right at the bottom of the pyramid is us the home gardener, make no mistake, we are of no importance to primary industry, processors or commercial seed operations. This is why we have to work a bit harder to find good varieties. because it is very important to understand that not all varieties are the same, to demonstrate this look at the professionals in the middle section, for

example The Asian Vegetable Research and Development (AVRDR), National Institute of Agriculture and Botany (NIAB), CIAT and The Tasmanian Institute of agricultural research (TIAR) to find more.

There are some excellent small seed businesses and researchers out there in the World that many have not heard of and may not be on the web, some have been around for years, some are newer, it is our job to track them down and support them. Many have cool climate varieties. Look up a book called "The Lost Crops of The Incas".

The Country as a region.

In each country there are commercial seed companies and their distributors, they usually have advisory staff and a catalogue. They advise farmers and supply top quality agricultural seeds of high germination, sometimes farmers varieties are more suited to mass production but a few are excellent for the home gardener in these regions. We don't have GMOS in Tasmania, Each State, county or department in a Country probably has it's own seeds adviser who knows the farms, their crops intimately and can recommend vars for these if they are in a cool climate.

Ethical research and development companies may grow a seed crop in a latitude of 42 degrees in the S hemisphere and send it to the equivalent in the N hemisphere, this makes perfect sense because the growing conditions will be similar.

There are many seed savers and small not for profit organisations working away, often with no real recognition but helping the home gardener. Some of their varieties would be very good.

The Farm as a region

Large commercial operations that specialise in one or two crops know these crops inside out, they know their paddocks, their soils, when to sow when to spray when to harvest, the weather patterns, the seasons, what they don't know is not very important, except maybe for a few observations like frost tolerance, higher than normal pest or disease damage higher than expected yields, extreme changes in weather patterns. In other words they know their region inside out. Seed companies are very careful to please these customers, they are big money and powerful. They purchase large amounts and practice carry over, where they store seed in cool rooms so fresh strong seed can last more than a few years. Vegetable growers in cool regions know exactly which vars will work, they do extensive trial work as well and go to many field visits at home and overseas.

Some farmers save their own seed some clean it themselves, or send it to a local seed cleaner. Many farmers don't save their seeds, they know a var can "drift" so over a few generations it is very different from the one they originally purchased and no longer as good it is easier and more reliable to buy them in..

A few do their own breeding work, but this crosses over into research a whole new ball game.

The Garden as a region

This is us. Gardens may be in towns, near rivers, Lowlands, in the mountains, inland, on the coast, every location even in cool climates will be slightly different. Keep a diary of when to sow, plant and harvest so you know your own garden. Our sowing date guide on the Inspirations Web site is general for cool climates but there will be slight variations depending where your garden is. Some home gardeners almost cross over with farmers when they have hobby farms, these may be of commercial significance in a small way even if not a primary income, if you run a hobby farm you probably know where to source cool climate quality seeds from directly, but if you don't read on. Most of us have a vegie patch, mabe 3m squared up to quarter acre.

We have to know our own 'garden' region, if we don't we will grow vegetable varieties that sound good and are in pretty packets but will disappoint. For short season cool climate (see about us on our web site) we need quick growing early producing varieties of pumpkin, sweetcorn, squash and mid to late varieties that require cold winters like brussel sprouts and leeks.

Part of a garden as a region.

In every cool climate garden there are microclimates, influenced by factors like frost pockets, rain

shadows, rich soils poor soils, windy spots, boggy areas, hilly terrain to name a few. Observe the heights and flowering times of daffodils in your garden and I guarantee that those in shady warm areas are leggy and poor flowers but flower earlier than cold frosty parts in windy positions, we can learn a lot from observing these sort of plants and even the rate of grass growth in different parts of the garden, this not only relates to soil quality but microclimatic conditions, I would grow early vars of capsicum and tomato in the warmest sunniest spots and leeks and cabbages in the colder windier spots.

Commercial seed catalogues

All of the above are regions as far as horticulturalists are concerned, commercial seed companies have catalogues which read to a farmer like a book, I am going to mention a few please look at Sakata, Petoseed, Nickerson Zwaan, Rijk Zwaan on the web, these are professionals, OK, you may not agree with the GMOS and big corporate image as we talked about earlier but please look at their catalogues because you can get information which will help YOU.

They know what they are selling, and grow their own seeds. They list varieties in alphabetical order, they don't always have pretty pictures but next to the variety is a list of what diseases it is resistant to, whether it is early, mid or late, how many days to maturity and what region it will grow in ie cool, shoulder, temperate or tropical, they usually mention if it is high commercial quality seed (expensive) or cheaper not so good seed, giving the grower a choice .

At the back of their catalogues they will have a very important table, listing each vegetable they sell and next it, the germination time in days, the spacing required, the number seeds per gramme, the coverage per hectare, from this info we can work out which types of and more importantly which vars will grow in our cool region. One word of warning be wary that some commercial growers catalogues are for warmer regions to start with so their idea of cool varieties is not the same as ours, note where the seed company is. Also many seed companies appear to sell the same variety ie Swede Laurentian be wary it may be selected and grown in different parts of the World, Inspirations specialises in seeds for cool climate regions.

Many professional small seed companies, myself included, grow or collect seeds that come from cool climate regions, for example highland areas in Spain, Southern England, Germany, across to Russia and over to China, and trial or grow out these varieties to assess them. This is the only way of finding good varieties for your own garden. It is very exciting to select from older plant material, get a strong new selection, and save seeds. We certainly do not grow GMOs , in fact I find it frustrating that there is such a huge movement by large corporate companies in the direction of transgenic crops. altering one gene can alter many others, and no one knows exactly what may result over time by doing this yet. I prefer traditional plant breeding techniques.

Adaptation and selection, looking briefly at traits, for cool climate

One question I am frequently asked is how do you get an early variety? The easy answer is that the plant has an early fruiting and ripening gene, honest it really does! We call these 'hidden genes' as opposed to where you can see a colour or shape of fruit. Plant breeders for many years have selected for early varieties even if early man did not understand genetics, many heirloom ones are desirable for this reason as well as more recent ones. At Inspirations we have a range of early fruiting tomatoes, melons, sweetcorn and pumpkins to name a few.

Another answer is that the seed was harvested from a few plants that survived and produced seed more than the others in a colder environment, hence selection. Sometimes a variety that grows in it's colder region ie Russia, Canada, Norther England is crossed with a more yummy var and you get a new early var. Experiment, it is fun. The easy ones to practice on are tomatoes and beans, these don't cross readily and come true to type. They don't need isolation either.

At the other end of the scale for cool climates are leeks and brussel sprouts. What we call mid to late season leek vars are useful here, it makes sense because they can handle the cold and get more tasty as they get bigger and have the cold weather on them to sweeten them up, flavour is important in plant breeding.

Early vars of leeks are pale green and longer shanks but do not handle the cold weather they are more suited to warmer regions, mid to late season are thicker and less shank and darker green.

We carried out a brussel sprout trial where we grew 13 varieties and noted them from germination to harvest. They have to be sown in late Nov/Dec to get the height on them when the days are long and the sun's energy is strong, once the daylength decreases the plant is strong enough to overwinter the sprouts which get bigger and sweeter in the winter, by Aug they are ready also the cabbage moth is not such a problem, having succumbed to the cold. Early brussel sprout varieties will bolt and go to seed in a cool climate so it is not a desirable trait.

Do not sow brussel sprout seeds in the Spring, wait until Dec.

The trial results showed that some had strong thick short stems and strong roots so they don't blow over in exposed sites with sandy soils, some had widely spaced Brussels for air circulation. Our taste tests were enlightening, they all tasted different, some were earthy, some nutty, some sweet and some soft and some hard. They varied in internal colour too some were dark green, some yellow, some pale creamy green. They are all for different tastes and markets, the important thing is that the breeders put a lot of time and energy into selecting these traits.

I sometimes get asked why bother to grow your own when it is just as cheap to buy in the shop? OK this is a good point, however I have to argue that a packet of 1,000 carrot seeds is pretty cheap. I noticed a very good reason why though about three years ago. When we have seedlings in the shop they are often slow at some times of the year, at other times there is a huge demand, apart from the fact that the home gardener is putting them in at the right time there is a subtle other reason, and that is that when there is a surplus crop a vegetable variety, comes down in price when it is in short supply it goes up, that is when more home gardeners think about putting seeds or seedlings in, unfortunately it is also a time when certain seeds or seedlings can't go in because the window of opportunity is not there; just like the growers, so please plan ahead and get them in when there is a surplus and I promise you, you will be ahead when there the shortage comes and market prices fluctuate. Another reason to grow your own is that they are fresh, full of nutritional value and the flavours from selected varieties are really fantastic. And finally, one of my staff pointed out that buying carrots, for example in bags throughout the entire year can actually work out more expensive than growing them in the garden as and when you need them. I don't think the processing companies and farmers see home gardeners as a menace bent on world domination by the grow your own movement, there is plenty of room for everybody in gardening. To conclude, we can learn a lot from the commercial companies and save a lot of disappointment and time by growing the right variety in the first place in our cool climate region by sourcing seed from a specialist supplier, like Inspirations. www.vegetableseeds.net.au for cool growers

In future Inspirations news letters we will look at the history of specific vegetables, what does heritage and heirloom seed actually mean, seed saving and how to and when to grow specific vegetable varieties, with success for cool growers. Enjoy Spring and Happy gardening from all of us at Inspirations Garden Centre, Exeter, Tasmania.

The Tamar River from the West Tamar Highway, enroute to Exeter. Inspirational Living!

