

INTRODUCING GROW NORTH

Transition Black Isle – Grow North

It is possible to grow a very wide range of fruit and vegetables in the Black Isle, providing food over an extended season. It's been done well for many years – until we all started shopping at supermarkets and forgot how to feed ourselves. Recently both nationally and locally the demand for growing space has increased greatly, with the demand for allotments in Scotland having grown by 40%. At the same time, more gardeners are trying to grow their own - sales of vegetable seeds to gardeners has increased 60% - mirrored at garden centres on and near the Black Isle. But whilst many more people would *like* to grow a significant part of their own food, most do not actually know how to. And many that do try, fail to achieve their aim and so end up frustrated and out of pocket.

This lack of ability to 'grow-your-own' seems to be due to a number of factors, including lack of knowledge; lack of practical skills; no relatives with the experience to call on; poor access to key resources, and working in isolation. On top of this the 'help' that is out there to 'grow-your-own' - from gardening books to makeover TV programmes – is mostly directed to growing conditions in the south of England, and are not suited to northern Scotland.

Transition Black Isle aimed to tackle the lack of 'grow-your-own' skills in a structured and comprehensive way by conducting a pilot year of knowledge and skills transfer and sharing, with a group of 50 families on the Black Isle. The resulting grow-your-own project, "Grow North" ran from May 2010 to February 2011. The project offered Black Isle residents an exciting opportunity to learn about growing from experts in a series of practical training sessions. The project was possible thanks to funding from the Scottish Government's Climate Challenge Fund.

The project attracted a mixture of new growers and those with some experience. During the year, Grow North combined guest speakers, practical sessions, and visits to established grow your-own-gardens, as well as providing seedlings and plants that course participants could take home. Participants enjoyed learning together and time and again people cited the social aspects of Grow North as part of its appeal.

The project was co-ordinated by Sheila Wickens, who is a keen organic grower. Sheila has previously worked both for the local authority and for the community sector in promoting aspects of sustainable living such as recycling, composting and washable nappy use.

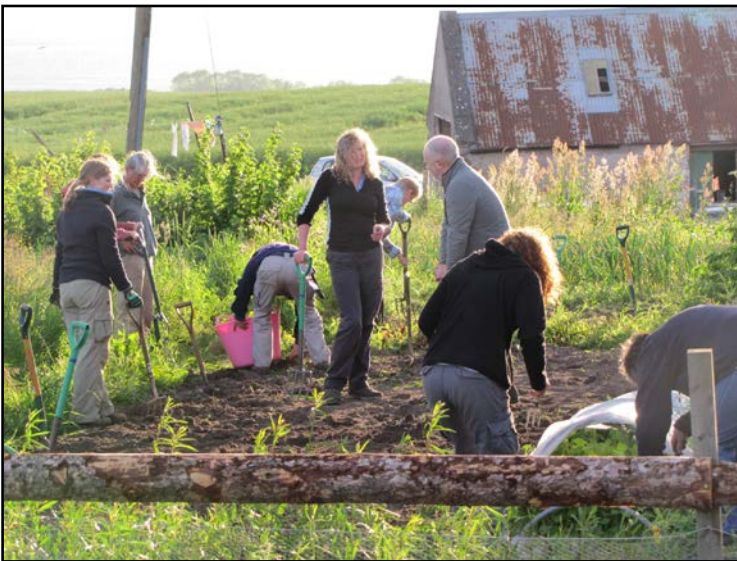
The programme of training was split into "core" training, which covered seasonal gardening tasks for each month, and "specialist" topics such as composting and pests and diseases. The course began with topics covering aspects of getting started, such as how to plan your garden and testing your soil. Throughout the year, other topics such as watering your crops, irrigation options, feeding your plants, successional sowing, and companion planting, were tackled, as were preserving and storing garden produce and introductions to fruit, herbs, and protected growing.

Grow North Study Gardens

Three study gardens were a key part of the course, and participants were able to visit these gardens for the monthly “core” training sessions, and to see the gardens develop through the seasons. The study gardens are located at two TBI community gardens at Loch Na Mhoid, near Muir of Ord, and Netherton Farm, near Culbokie. The third site was at the Black Isle Leisure Centre in Fortrose.



Loch Na Mhoid Community Garden, by Muir of Ord



Culbokie Community Garden at Netherton Farm

Transition Black Isle received funds for establishing and developing community gardens. The community garden project and Grow North were closely related projects, encouraging and supporting people in producing their own food. These would be for 10 – 12 local participants, and have the capability of providing them with at least half of their vegetable and fruit consumption all year round. The community gardens that were established during 2010 will have a lifetime of at least 5 years. Each of the community gardens has a selection of tools

available, and has had a polytunnel erected for the use of the community growers and for Grow North.

The garden at the Black Isle Leisure Centre in Fortrose, while not a community garden with regular visitors, proved to be an excellent study garden. It was surprisingly productive and weed free. All the growing space here was in outdoor beds, pots and grow-bags, as there was no polytunnel or greenhouse.



Grow North at the Black Isle Leisure Centre, Fortrose

Grow North Tutors

Sheila Wickens

For some years now Sheila has been committed to all aspects of sustainable living, and has a wide range of experience working in raising awareness of waste. Prior to coordinating Grow North Sheila had done some other free-lance work, including conference co-ordinator for HEN, on the theme "Growing Food – Growing Communities" and for RoWAN providing expertise on preservation of fruit & vegetables. Sheila has experience of organising projects and creating learning resources. Sheila has a keen interest in growing fruit and vegetables and has been a member of Garden for 10 years. Sheila also has a great interest in the preservation of food, including jams, chutneys, bottling, and dehydrating, freezing and wine making.



Audrey Litterick is a self-employed environmental consultant, working UK-wide, mainly through the small company Earthcare Technical, which specialises in the science and practice of organics recycling and the application of organic materials (such as composts and anaerobic digesters) to land. Audrey originally trained in horticulture and is a passionate advocate of small-scale and local food production. She is an enthusiastic and committed trainer and regularly runs courses for crofters, gardeners and small-scale growers on horticultural cropping.

As Master Composter Project Officer, **Katy Kitchingham** was happy to talk compost! The Master Composter Project was delivered by RoWAN - Waste Action across Ross and Cromarty and Inverness from Sept 2008 to Oct 2010. It then evolved into the Zero Waste Volunteer Project, supporting a network of local, trained volunteers in promoting other waste reduction campaigns as well as home composting. For more information, contact 01349 867063 or zerowastevolunteers@rowan.org.uk.



Daniel Ross

Following in his father's footsteps, Daniel has a keen interest in horticulture, and has worked for many growers including here on the Black Isle, as well as in Fife, Lothian and Northumberland. He also maintains his own croft. In addition to teaching Grow North sessions, Daniel has been teaching horticulture at a local farm ('farm to work').



Les Bates has many talents; including forest gardening, willow sculpture and creative writing and poetry. With his wife Sheila, he runs Croft 7 <http://www.croft7.com> providing garden design advice. Les has helped develop many orchards in the local area, including an orchard at the Beauty Centre. Since relocating from Kirkhill to Torridon, Les is now employed to manage and develop the 59 acres of garden grounds of The Torridon Hotel <http://www.thetorridon.com/> including the 2 acre Kitchen Garden, supplying herbs, fruit, flowers and vegetables direct to the Hotel kitchen and restaurant. Les is also actively involved with Reforesting Scotland.

Duncan Ross has run the herb nursery at the walled garden at Poyntzfield organically since 1976. The nursery specialises in popular, unusual and rare organic/biodynamic herb plants and seeds (including Scottish natives). In addition he grows unusual native herbs / edibles like Oyster plant and Rock Samphire. Duncan also teaches organic herb gardening at the Royal Botanic Garden Edinburgh. Duncan has published three booklets about herbs; the next on the Herbs of Japan should be printed soon! See www.poyntzfieldherbs.co.uk for all the latest information. Duncan is also a keen fiddle player, and says that playing music in the house or to the plants is all the same!



Maggie Wormald has a background and training in Rural Studies and Agriculture and is now involved in rural training and education. This includes apprenticeships and work based learning and work as local coordinator for the Royal Highland Education Trust “taking the classroom to the countryside”. Maggie is a keen gardener having been involved in growing vegetables and fruit organically for over 25 years. She has a poly tunnel and productive garden on the Black Isle. Maggie enjoys helping people become enthusiastic about growing and using their own produce in a sustainable way and realising how satisfying and rewarding this can be.

Maggie Sutherland and her company The Natural Vegetable Co are located on the southern edge of Inverness at Torbeck. Maggie produces a range of fresh organic vegetables year-round, growing both outdoors and in large polytunnels. This is now their sixth growing season as The Natural Vegetable Co, and Maggie supplies her customers both through a vegetable box scheme, and at markets. Produce is also delivered to local hotels and restaurants. The Natural Vegetable Co is a Soil Association registered organic producer committed to natural horticultural production. Maggie has previously taught on the Apprenticeship scheme run by Highlands and Islands Local Food Network. Maggie also keeps pigs.



Growing in the North of Scotland

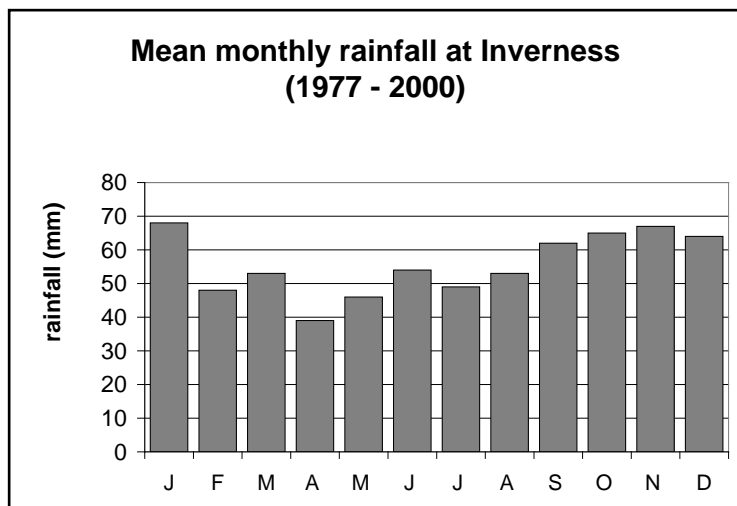
The UK may be a small island, but there are climatic variations between the south and north, (as well as the east and the west) which can mean that as growers, what you can grow and how you grow will be different from one extreme to the other. Unfortunately, most gardening books and magazines tend to be written by people who are geographically based in the south. The good news is that with a bit of know how, you can successfully grow lots of different fruit and vegetables in the north for much of the year. By being aware of the conditions required for germination and then growth, you can make better decisions about when and where to sow and plant particular crops, so you don't just blindly follow the seed packet instructions.

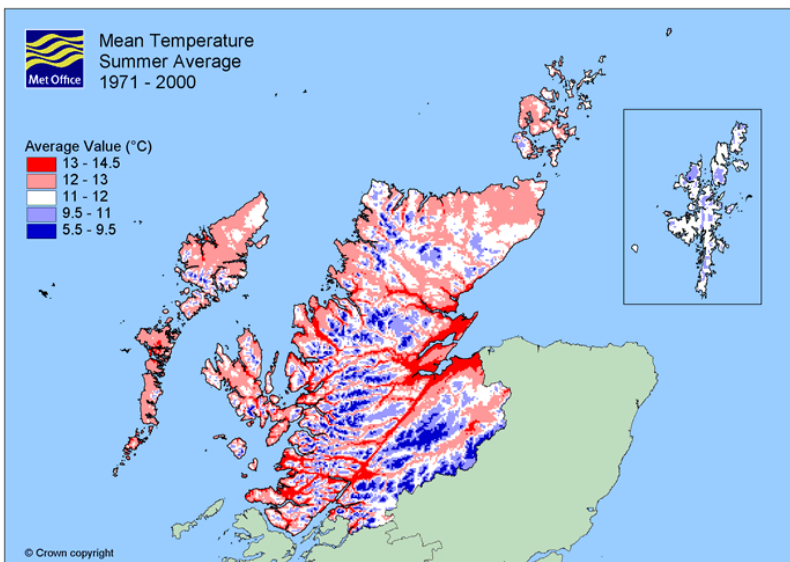
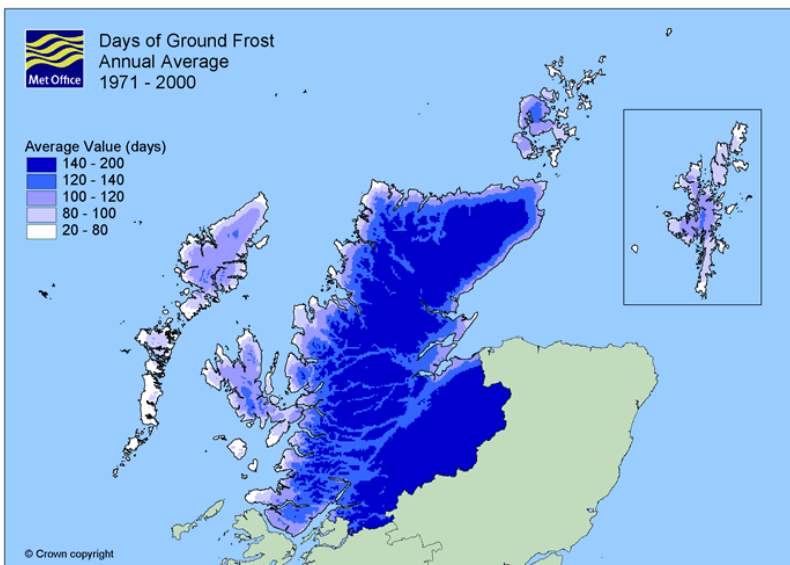
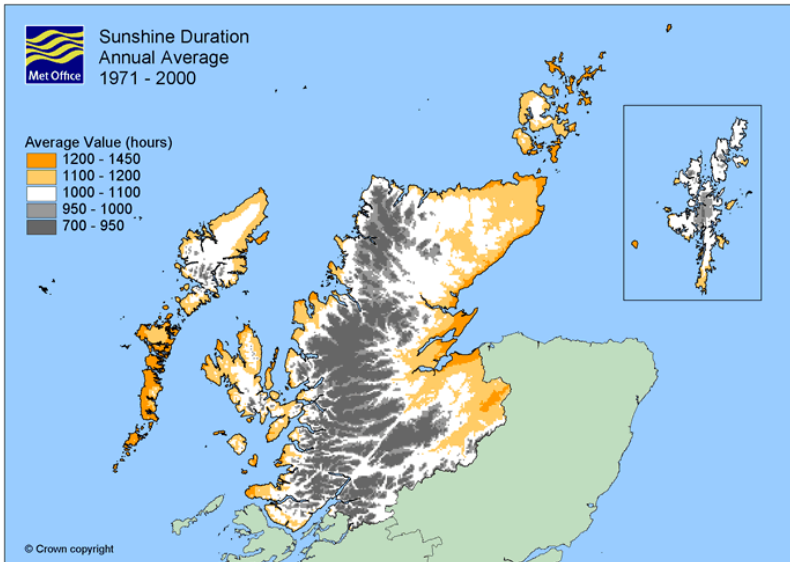
There are not hard and fast rules about what can and can't grow here on the Black Isle. However there are some fruit and vegetables that will struggle, such as peaches, nectarines and apricots, figs, melons, kiwis, almonds, and walnuts. Other crops such as sweet corn may not always do well outside, but can give an excellent crop if conditions happen to be right for them. Even in a polytunnel or greenhouse, you may struggle to get a great crop of aubergines. However this doesn't mean that they can't be grown here, or that you shouldn't try if you want to, and the same goes for the more exotic fruit listed above. There are climatic variations even within the Black Isle, and you will see differing levels of success for some of these more marginal plants in different locations – e.g. a Muir of Ord fig has yet to produce fruit in 6 years, whereas one in Fortrose performs well each year. This can show us clearly the difference that a good sunny aspect or a more sheltered location can make. Remember that altitude too, can also make a difference, whether it means slightly later frosts, or more exposure to wind.

In order to grow crops which are at the edge of their range of tolerance, a balance must be struck between the length of growing season and the number of growing degree-days the crops require from sowing to harvest. Growing degree-days refer to the cumulative temperature across the season a plant requires in order to reach fruition. For example, tomatoes in the north of Scotland, due to the relatively low summer temperatures, require a longer growing season to reach the required growing degree days. However of course, the outdoor growing season is relatively short and extra effort is required to deal with this, such as late winter sowing indoors and planting out under cover (or a sunny window ledge). For crops which require a shorter number of growing degree-days to reach harvest (such as runner beans) the growing season start date becomes the main consideration. And sowing may start later than further south in the UK to avoid later frosts.

The Growing Climate in the Black Isle

The Black Isle's location as a peninsula, bordered by sea to the east and higher ground elsewhere means that this part of the Scottish Highlands is protected from some of the harshest weather that the region as a whole can offer. For much of the Black Isle, the proximity to the sea has an ameliorating effect on temperature extremes, with fewer frost days in spring and autumn than other more inland regions.





As for rainfall, the Black Isle is relatively dry for the Highlands with annual totals in the region of 600 to 1000mm compared with almost 2300mm at Kinlochewe. The dry climate is a consequence of the region falling within the rain shadow of some of the most mountainous landscape in the UK. With a prevailing south-westerly Atlantic airflow, much of the moisture content of the maritime weather systems dominating the climate of the Scottish Highlands is released over the uplands to the south and west, leaving relatively dry air to descend upon the Black Isle. In general, autumn and winter are the wetter parts of the year, with April and May being the driest months. (See graph on previous page)

Since the sea and uplands have such an impact on the

climate of the Black Isle, it is perhaps unsurprising to find that there are wide variations in climate across the peninsula. The west of the Black Isle including Muir of Ord and Tore can be characterised as more 'continental', in that winters are colder and summers are warmer than the more 'maritime' parts of the region such as Fortrose and Cromarty. The west is also wetter on the whole due to the general west-east rainfall

gradient of Scotland. For growing vegetables, these differences mean that there is no one single Black Isle growing climate and crops that may do well in Cromarty may struggle in Muir of Ord and vice versa. Similarly, sowing, planting out and harvest dates will differ across the region.

An indication of the local growing climate of the Black Isle in relation to the rest of the

Highlands, along with a demonstration of the variation across the peninsula is shown in the above maps of sunshine duration, days of ground frost and mean summer temperature produced by the UK Meteorological Office.

Growing season length: past, present and future

A useful indicator of a region's growing climate is its growing season length. As its name suggests, this indicator is used to quantify the effective length of season available for growing outdoors. The growing season is defined as the period which starts on the fifth day in a row which has an average daily temperature of 5°C or greater and ends on the fifth day in a row with an average temperature of 5°C or less. According to the Handbook of Climate Trends in Scotland produced by the Scotland & Northern Ireland Forum for Environmental Research, the growing season length in Northern Scotland, including the Black Isle, is currently around 245 days. This compares with around 270 days for coastal western Scotland, 280 around Berwick upon Tweed, and over 310 days for parts of Kent in S.E. England.

An analysis of the rising temperatures over the past 50 years indicates that growing season lengths in the Scotland have increased by upwards of 4 weeks in all regions. In Northern Scotland the start of the growing season has, on average, moved from early April in the 1960s to mid to late March and now ends in late rather than early November.

Looking forward, the most recent climate projections for the UK (UKCP09) indicate that the growing season will continue to lengthen in the Black Isle, approaching 270 days on average by the 2050s. Such a change in growing season could be expressed as that of the Black Isle adopting the growing climate of the Scottish Borders.

	N. Scotland	E. Scotland	W. Scotland	Scotland
Increase in growing season length	31.1	32.5	36.7	33

Table 1 Changes in growing season length (in days) from 1961 to 2004.

It is clear that in many aspects, the Black Isle climate is suitable for growing a wide range of garden produce. Proximity to the seas ensures that for many parts of the region, winters aren't overly harsh and spring and autumn frosts are reduced. The shelter from rain-bearing Atlantic weather systems provided by the neighbouring uplands ensures sufficient sunshine and reduces the prevalence of water-logged soils and damp-related pests and diseases.

The Black Isle has a range of local climates from west to east and from coast to hill so general recommendations on optimum plant varieties, planting times and yields are hard to produce. Similarly, it is clear that the climate has been changing and may well continue to do so. As such, each grower may wish to consider adapting general advice on growing to their own local conditions and be prepared to adapt to conditions as they change.

Reference

Barnett, C., J. Hossell, M. Perry, C. Procter and G. Hughes (2006) A handbook of climate trends across Scotland. SNIFFER project CC03, Scotland & Northern Ireland Forum for Environmental Research, 62pp.