

The Education for Sustainable Development Forum (ESDF) is a networking organisation that promotes a co-ordinated approach to the delivery of environmental and sustainable development education in Northern Ireland. Members include representatives of central and local government, the voluntary sector and the educationalists.

The Forum highly recommends this excellent resource as a way of connecting young people to where our food comes from and how they can grow their own fresh, organic, local produce.

The very act of getting children involved in growing food helps them have a better understanding of how nature works and ultimately instils in them many basic skills and qualities that will stay with them for life.

The joy and wonder expressed on children's faces when they get to pick and eat the produce that they have sown, watered, weeded and cared for is a fantastic culmination to all the effort and hard work.

We strongly urge teachers and group leaders to pick up this resource and use it to get children sowing, growing and munching!

Alyn Jones
Chair of ESDF







FOR SCHOOLS

Grow healthy goodness a Calance
Wholesome

INTRODUCTION

Eating great food can be one of life's greatest pleasures, something that stays with you your whole life and leads you on a journey through different flavours and textures; or some people will always see food as simply fuel to keep their body healthy, happy and energetic, to enable them to do whatever they wish.

Either way, fresh, wholesome locally produced food is important to everyone – the food we choose to eat can either do us lots of good, or, in the long term potentially cause us harm.

Certainly we owe it to our children to at least inform them in simple terms where their food comes from, who produces it, how it is produced and give them enough knowledge to inform their food choices through life. A healthy lifestyle is about balance.

Not all food has to come from a supermarket, over packaged or overly processed. It's natural for root vegetables to have soil on them, milk comes from cows that should eat lovely green grass, eggs come from chickens, meat comes from animals, and the cooker in your house is not just for reheating stuff. Neither is the cooker or stove something that needs to be laboured over for hours! Cooking from scratch simply and quickly with raw ingredients and minimum effort can be very empowering for both parents and children. It can also save a lot of money.

Exposure to growing even a small amount of food in a school environment can help introduce children to real food. A recent research paper (1) has proven that not only does it promote health and well-being, particularly in relation to diet and nutrition. but also encourages and facilitates learning, builds skills, improves awareness and understanding of the natural environment and its importance to us, supports school improvement and strengthens communities. What's not to like?

Food growing influences environmental awareness and attitudes. 80% of schools surveyed cite teaching children about the environment as a motivation for food growing in their school. Children and young people with increased knowledge of the natural world, such as biodiversity, ecosystems and sustainability, understand their impact on the environment and their role as environmental stewards and have increased levels of environmental responsibility.

This guide is not intended to be a comprehensive book, but a brief overview of what can be done to establish food growing in any school. It is a monthly growing guide, along with basic nutritional information on some common and easy to grow fruit and vegetables. It hopes to go further by providing recipes for simple food which can be done in a classroom with raw ingredients where possible, and very simple cooked dishes which could be done in school given the facilities, or at home with parents or guardians.

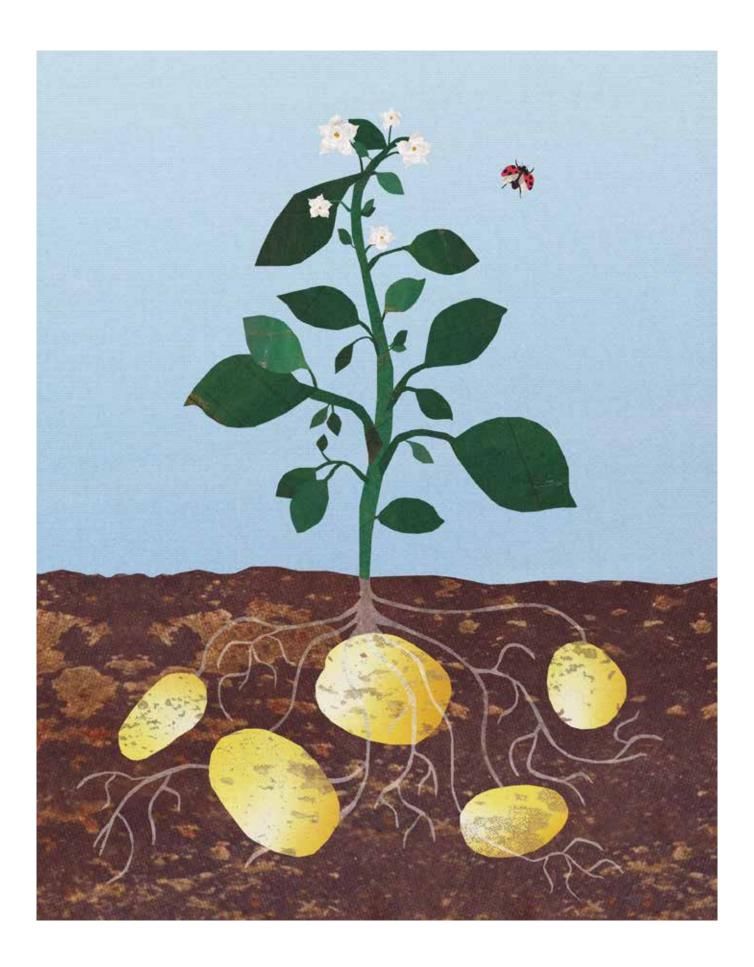
There is a section on where food comes from, why agriculture is vitally important to any country, particularly ours and how, when we choose to buy local we support a whole host of local businesses.

So, please use the guide as a starting point and a platform. Use the resources section and visit the terrific websites which are available to learn more about the wonder of nature that is growing food!



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USING GROWING WITHIN THE NORTHERN IRELAND CURRICULUM

Food growing projects create educational, recreational and therapeutic opportunities for school children. A school growing club:

- Contributes to children's knowledge of healthier eating.
- Offers children the chance to experience food growing and understand where food comes from.
- Provides an opportunity to involve parents and strengthen home-school links.
- Boosts the confidence of the children who take part.
- The health benefits of school gardens include promoting physical activity through regular exercise and promoting mental health through creative achievement (2).

Whether you decide to opt for a school growing club or use a school garden to participate in an environmental initiative such as Eco-Schools, growing and using food on-site can assist with teaching in other areas of the curriculum, such as:

Special Education Needs

Developing practical skills and learning, creative achievement, life skills. Tangible reward for effort in terms of usable crops.

Foundation stage, KS1, KS2, KS3 and KS4.

Language and Literacy

Words and spelling. Talking and listening, writing about their

experiences in the garden and what has been done. What would be in a fantasy vegetable garden? Following a simple recipe. Comprehension and analysis.

Mathematics and Numeracy

Counting number of plants, number of rows, how many weeks it takes for plant development, measuring distance between plants and seeds. Shapes and surface area calculations. Percentages, fractions, probability. Measuring the school grounds or growing area. Measuring crop yields. Weighing out ingredients for recipes.

The Arts

Drawing plants, vegetables, fruit or insects found in the garden. Making labels. Pressing leaves or flowers. Decorating recycled pots and containers for growing. Making bird boxes, bat boxes or bug habitats. Measuring and drawing the school growing area. Vegetable art. Photography.

The World Around Us

Weather and climate change. What else is living (plants and animals), how do living things survive. Features of and variations in places, including physical, human, climatic, vegetation and animal life; ways in which living things depend on and adapt to their environment. Environmental considerations and impacts. Recycling, composting, soil fertility.

Personal Development and Mutual Understanding

Health awareness through outdoor activity and understanding fresh food. Working together in the garden to make things happen. Basic cooking skills.

Learning for Life and Work

Home Economics. Local and global citizenship. Discussion on diverse number of jobs available in the areas of food production (horticulture, processing, laboratory work, NPD, marketing and distribution) are relevant in a world with a growing population.

Setting up a school vegetable stall teaches entrepreneurship and commerce. Recipes are designed to be easy, and use local and store cupboard ingredients.

Environment and Society

Geography, Ecoworld – climate change, soil, food sustainability. Environmental awareness; explore the local food supply chain. Rainfall measurement. Biodiversity and habitat. History through food – different production and cooking methods.

Science and Technology

Science including chemistry, geography and biology.
Germination, photosynthesis, the water cycle. Creating a map and orientation of the school garden.
Conditions for growing and soil testing (acid/alkali). Biodiversity and habitat. Global warming.



WHY IS IT IMPORTANT TO EAT LOCALLY PRODUCED FOOD?

Food is just food, right? Well not really. In the same way that we are exposed to all sorts of global information via the internet, our food can also be sourced globally.

In Northern Ireland we have a lot of rainfall. This isn't always welcome, but the result is that this rain combined with our temperate climate creates the ideal environment for growing grass and crops using natural resources.

So our farmers can rear cattle for beef and milk, grow rapeseed for oil, and produce lots of fruit and vegetables and grain. As we are an island nation we also have access to lots of lovely fresh fish, including the fantastic Lough Neagh eels and pollan!

In fact our farmers are so good at growing all of this food that we export a lot of it (up to 85%) to other parts of the world.

So if the farmers and growers are selling everything already why should we need to buy it? Well, buying local food means it doesn't have to travel so far, so it cuts down on transport and "food miles". Because it's fresher, it will probably taste better, have less (or no) preservatives and be better for you because the vitamins and minerals will still be there. The most nourishing and wholesome foods are those that are as close as possible to their natural state, and place of production.

It's not just farmers who produce food, there can be lots of other links in the chain which are necessary in order to bring food to our table. There are food producers, processors and manufacturers who buy the raw ingredients from arable farmers, livestock farmers, dairy farmers, egg producers and fishermen.

Farmers use machinery, feed manufacturers, the local vet and a host of other agricultural and horticultural goods and services.

Food processors, producers and manufacturers use packaging and label suppliers, employ experts in design and marketing, food technology and food distribution systems.

Food distributors and wholesalers employ logistics staff, lorry drivers, sales people and office staff.

Local restaurants, cafés and hotels use goods, services, chefs and other skilled staff to ensure that we all have a great experience when we go out to eat.

Local shops and supermarkets employ lots of people locally to ensure that the food we buy is available when we want it.

The simplest supply chains are usually found with small artisan producers, many of whom are farmers too. They make a wide variety of foods, typically made in small batches and are sold through

independent shops or directly at fairs and farmers' markets.

So supporting all of these people is more sustainable because it helps our economy, creates jobs and makes sure that they will always be in business to produce food for us.

Farmers and food producers are really important to every country, but particularly ours. Did you know that farming and food contributes £4.5 billion to our economy and supports almost 100,000 jobs (3).

The diagram opposite helps explain in simple terms how so many of us are connected through food.

How can I tell if food is local?

Look for labels on packaging, such as "produce of Northern Ireland" or "produced in Northern Ireland". Sometimes it will say "Country of Origin", so look for Northern Ireland. If they put the farmers name on the packet so much the better. Since we are in Northern Ireland, then Ireland and UK are the next best thing.

We have so many foods available in NI that are pretty unique and special to us such as soda bread, potato bread, champ and wee buns. They are part of our food heritage.



SETTING UP YOUR ORGANIC FOOD GROWING AREA

Organic gardening in its simplest form just means that you do not use any chemicals, artificial pesticides or fertilisers or anything that could harm your garden or the environment. You are aiming to work with nature and your environment and recycle and reuse as much as possible.

It is important to provide habitat for nature's pest controllers such as birds, frogs and beneficial insects which also help with pollination of your edible plants.

You can grow anywhere! If you are lucky enough to have outside grass space at school, raised beds or recycled containers can be positioned there. If you have no grassy space and have tarmac or concrete instead you can set up containers, grow bags and large pots too. Basically, if you have something that will hold soil, you can grow food.

The best advice for any budding garden scheme is to start small, and build on what you have over time. If you have success with a small amount of growing space it gives everyone the confidence to push on and do more.

Create a group

This could be a garden committee if you want to be formal, but in any event a group of interested pupils, teachers and parents who can help with making the vision happen is a very useful thing. An interested school caretaker can also be a brilliant asset.

Parents in particular will have many invaluable skills such as joinery, gardening, building and knowing how to use a wheelbarrow and shovel in order to move topsoil when the garden is being set up! Many hands really do make light work.

It would be fantastic if a group of parents and/or teachers could create a rota system for tending the garden during the summer holidays in July and August. One person could commit to, for example, two days for a week, for an hour or so to keep on top of weeding and watering where necessary. Also, if fruit or other crops were ready to harvest they could be frozen for use when the school year resumes.

This would mean that a much larger variety of crops could be grown and there would be lots happening when the pupils come back in September. It would facilitate the growing of pumpkins and squashes, main crop potatoes, kale and other brassicas such as cabbage and leeks.

Come up with a plan

Look at the space that you have available and plan as a group what you want to grow.

Things which you might want to consider given the space are:

- Raised beds or containers for your veg plot.
- An area for permanent herbs.
- Fruit bushes and strawberries.
- Fruit trees for a mini orchard.
- A perimeter of native hedging plants which will provide habitat for birds and wildlife.
- A small (shallow) pond to provide habitat for frogs and water for other creatures.
- A polytunnel or greenhouse.
- Compost bins.
- Habitats for frogs and insects such as log piles and insect hotels.
- Bird, bat and bug boxes.
- Chickens.
- Living willow structures.
- Native woodland area.

Containers

These can be bought or made out of recycled materials. They must have some holes in the bottom for drainage but if they don't, you can drill some. The larger the container the better; very small pots or containers need too much attention in terms of watering and feeding and your plants may not do so well.

Raised beds

These can be made from untreated sleepers, old scaffolding boards or 9" x 2" pressure treated boards. If you use wooden boards the important things to remember are:

- Lining the inside sides of your beds with damp proof course or heavy plastic sheeting (use a staple gun to attach) will prolong their useful life immeasurably, lasting for at least ten years. Damp proof course is not expensive and is available to buy at builder's merchants or DIY shops.
- Even if you are using pressure treated timber, an environmentally friendly wood preserver applied to the outside once a year will keep it looking smart and in tip top condition.
- The beds should be no more than 1m wide so that the middle can be reached from both sides without walking on them.
- Make your raised beds at least
 9" (23cm) high which should
 let you grow most crops.
- Leave at least 1m between beds so that you have room for lots of little interested bodies to watch what is happening; it also allows wheelchair access and room for a wheelbarrow.
- Make a section of your raised beds 2 - 3ft (60 - 90cm) high to facilitate anyone in a wheelchair.

Soils and composts

Good topsoil mixed with multi-purpose or potting compost is best, and a little horticultural grit for hardy herbs – add a top dressing of compost in autumn and spring and a scattering of pelleted chicken manure.

Position (in relation to the sun)

If you are lucky enough to have a space facing south, south east or south west you will be able to grow almost anything. Don't be disheartened though if the only space you have faces north or is shaded by tall buildings, as lots of crops do quite nicely in shade. It would be better if the space gets some sunlight at some stage during the day, but there are lots of possibilities if that is not the case.

- Plants for shady areas: mint, parsley, chives, salad leaves, root crops like potatoes, beetroot and carrots, radishes, rhubarb.
- Plants which prefer full sun:
 Mediterranean herbs such as
 thyme and rosemary, and fruit
 so that it ripens properly.
- Inside on your window sills:
 basil, pea-shoots, micro cress,
 parsley, coriander use
 beautiful painted pots, or
 recycled ones, and remember
 that all containers must
 have drainage holes.

What tools do you need?

The great thing about gardening is that you do not need a lot of complicated tools or equipment, and anything you do need is usually inexpensive. In fact the best tools that you have are your hands!

There are a few basic tools though that you will find useful and if you put the call out to parents and the local community you may find that you get some donations.

Rake – to level off raised beds and spread compost or manure in the autumn.

Hoe – move a hoe gently backwards and forwards under the soil in warm weather to cut emerging weeds off at the root.

Hand forks and trowels – you will probably use these more than anything else for weeding, harvesting and planting out crops.

Large digging fork – to remove stubborn weeds and break up new ground.

Spade – to break up clumps in heavy ground.

Gloves – to keep hands and nails somewhat clean.

Plastic trugs – which are incredibly useful to put crops in, weeds, compost and more.

Plant labels and a waterproof marker – or you can make your own labels in class. Watering can or hose – for watering in dry weather.

Secateurs – for cutting hardy herbs and scissors for harvesting salad leaves.

Selection of pots and trays – recycle and reuse where possible – washed yoghurt pots and food containers are good so long as you put some drainage holes in the bottom.

Wheelbarrow – for compostable material, moving soil or compost and gathering leaves in the autumn to make leaf mould.



"many hands make light WORK!

CROP ROTATION

Crop rotation simply means that it is better not to grow the same thing in the same place year after year.

Most vegetables are a member of a "family" and if the same family is grown in the same place continuously there can be a build-up of pests and diseases specific to those plants. It is best to aim for a three year rotation or four if you can manage it.

For a three year rotation, divide your growing area into three and choose which plants you want to grow. Group them by plant family (see below) and then, for example a simple rotation might be:

Year 1 Potato family

Year 2 Other crops

Year 3 Brassica family

Year 4 Back to potato family again.

Potato Family (Solanacae)

Potato, tomato, pepper, tomato, aubergine.

Cabbage Family (Brassicas)

Cabbage, kale, broccoli, cauliflower, Brussels sprouts, radish, turnip, kohlrabi, swede.

Pea and Bean Family (Legumes)

Pea, mange tout pea, French bean, runner bean, broad bean.

Onion Family (Alliums)

Onion, garlic, shallot, leek.

Carrot Family (Umbellifers)

Carrot, celery, fennel, parsnip, celeriac.

Squash Family (Cucurbits)

Pumpkin, cucumber, courgette, melon.

Others (can fit into any rotation)

Beetroot, lettuce, chard, spinach, corn.

Don't get too hung up on crop rotation, but do keep a plan of what you have planted in which place every year so that you do not grow the exact same thing there again for a couple of years.

Permanent plants such as herbs, fruit bushes, rhubarb and fruit trees obviously are not moved.

If you grow in large pots, grow bags or containers, do not worry about crop rotation as fresh compost will need to be added every year anyway.

TIPS ON HARVESTING CORRECTLY

Most crops are fairly easy to harvest and there are some simple things to know so that you get the most from whatever you are growing.

Root crops

This may seems fairly obvious, but the general rule is pull them up when they look big enough! Things like beetroot, carrots and parsnips will usually sit a little bit above the ground so you can see what size they are. If not, gently remove a little bit of soil from around the top so you can see what size the root is. If summer holidays are coming up, do not be afraid to harvest your root crops when then are 'baby' size; they will still taste absolutely delicious.

Not every root crop pulls out of the ground easily so ease a hand fork underneath to help release them.

Spinach, kale, chard

Some leafy greens produce leaves over a long period of time. To get the most out of them, you can take some (½ to ¾) of the larger leaves off at once. Pick them off by hand, and leave the smaller leaves which will help to regenerate the plant. You will get another harvest much more quickly.

Onions and garlic

Autumn/winter planted onions and garlic will usually be ready the next May or June. When the leaves start to turn yellow they are probably ready and the onions should be sitting a little bit above the soil. Use a hand fork or trowel to ease them out, shake the soil off the roots and spread out to dry either outside if the weather is good or in a shed or covered area.

Fruit

Generally fruit is ready to harvest when it comes off the tree, bush or plant easily. So apples will come off with a little twist, and berries such as strawberries, blueberries, blackcurrants, raspberries and tomatoes will come away with the lightest of touches. You should never have to yank ripe fruit off a plant.

Your best judge is always your nose, your eyes and your taste buds. If they smell ripe, have a deep colour and taste ripe, then they are ready. Always taste some before you start to harvest.

Rhubarb

Rhubarb is a very low maintenance crop, and after the first year (in which you shouldn't harvest anything) you can pull stalks three or four times during the late spring and summer. Pull the stalks (leave one or two on the plant) cleanly from the base of the plant – don't cut them off as the bit that is left can rot.

Remove yellowing stalks and leaves as they appear and all dead leaves when the plant dies back in the winter.

Salad leaves

If you grow cut-and-come-again salad leaves, either pick off the outer leaves individually, or cut them off about 5 – 6cm from the ground with sharp scissors and they will regrow up to four or 5 times. Remove any leaves that are yellow or have large holes and put in the compost bin.

If the leaves put up shoots (try to flower) cut them off immediately. When they do eventually bolt or become unproductive, take them out and re-sow another crop.

Wild rocket

If not allowed to bolt, wild rocket will give you a crop of leaves about every 14 days. Not only that, but the plants are perennial if we have a mild winter, which means that they will start producing in abundance again in the spring. If you have too much rocket they make a great pesto.

Pick off the larger leaves individually or cut them off with a sharp pair of scissors, making sure to leave some smaller leaves underneath so the plant can regenerate.

Wash all salad leaves in cold water, spin or pat dry with a clean tea towel, and they should keep in a covered container or plastic bag in the fridge for up to a week.



Lets get Cooking!

Why do onions make you cry?

Where do potatoes originally come from?

Find the answers to these questions
and learn how to prepare the
fruit and veg you've been growing.

Onions and garlic both belong to the plant family called alliums. They are both used in so many cuisines around the world as they add fantastic flavour to just about any dish.

The onion is an important food crop and has been cultivated for more than 5000 years.

The Egyptians held both onions and garlic in very high regard and many Pharaohs were buried with onions as they were seen as a symbol of eternity.

Onions have small quantities of lots of vitamins including vitamin C, minerals and dietary fibre.

Spring onions are an excellent source of vitamin C and their green tops contain beta carotene and folate which is one of the B vitamins.

Garlic is a good source of minerals, including phosphorous, calcium, potassium, iron, copper, selenium, and manganese. It is an excellent source of vitamin B6 and vitamin C.

Garlic has been highly valued through history for its antiseptic and antifungal properties and is sometimes referred to as Russian penicillin.

When an onion is cut an acid is released into the air it can travel up to your eyes and make you "cry". The tear glands in your eyes release water to wash the irritant away. An onion kept in the fridge will not release as much gas or you could wear swimming googles!

Onions & Garlic



Growing garlic and onions

You can buy onion seed, but it is easier to buy sets (baby onions) from the garden centre or online, along with virus free garlic bulbs. Each garlic bulb contains about 10 – 12 individual cloves.

Plant both winter onion sets and garlic cloves from October to February (although before Christmas is better). Plant 10cm apart in rows with 25 – 30cm between the rows. Make a hole with your finger so that the clove or baby onion sits just below the surface of the soil. Cover with soil and wait!

Average time to harvest:

Autumn planted onion sets and garlic cloves will be ready to harvest in May or June. Both are suitable to grow in large deep pots or containers, filled with compost.

Both onions and garlic are used as a base for soups, casseroles, stuffings, pasta sauces – the list is endless. Use these recipes to make them the star ingredient.

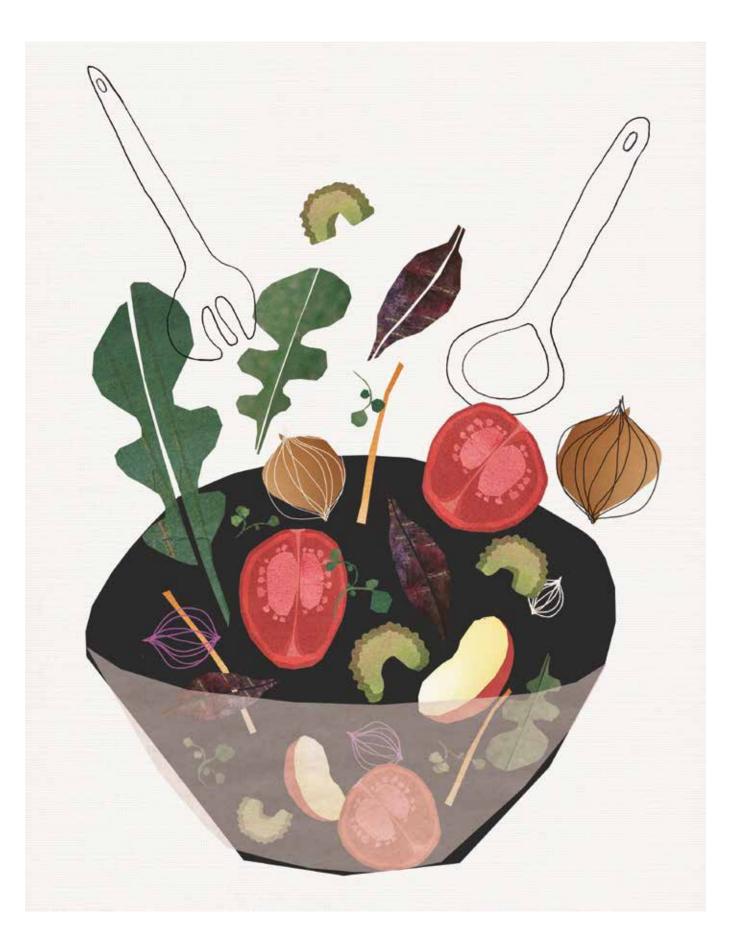
French onion soup (serves 4)

700g onions, peeled and thinly sliced,
2 tablespoons rapeseed or olive oil,
50g butter,
2 cloves garlic, crushed or finely chopped,
1.5 litres of vegetable or beef stock (low salt stock cubes are fine),
Salt and freshly ground black pepper, to taste,
4 thick slices of good bread,
200g of Gruyère or local cheddar cheese.

Place a large saucepan on a high heat and add the oil and butter. When the butter has melted add the onions and garlic. Keep stirring from time to time until the onions begin to turn dark.

Reduce the heat to its lowest setting and let the onions cook for about 20 – 30 minutes. Pour in the stock, and scrape all the lovely brown bits off the bottom of the saucepan with a wooden spoon. Bring up to simmering point and then let the soup cook gently on the lowest heat setting, without a lid, for about an hour.





The Romans and ancient Greeks ate salad leaves with dressing but the word salad did not appear in English until the 14th century.

The phrase "salad days" is first recorded by William Shakespeare in 1606.

Lettuce contains fibre, and contains important micronutrients, phytonutrients and antioxidants.

Different types of salad leaves contain very significant amounts of vitamins C, K, A and the B-complex vitamins.

They also contain iron, calcium, magnesium, and potassium and are very low in calories.

Salad rocket is one of the greens that are very rich in folic acid.

Different types of salad leaves contain different nutrients and antioxidants. Generally, the darker the colour, the higher the levels of good stuff.

Salad Leaves

There are an amazing array of salad leaves chocked full of flavour and really good nutrients. Choose the more colourful types rather than just boring iceberg.

Growing salad leaves

Salad leaves are really easy to grow and if you grow cut-and-come-again varieties you could be picking salad leaves from late spring through to late autumn.

Sow thinly in drills 1cm deep, in rows 20cm apart from late March to October. Salad leaves can be grown in large pots, recycled containers and grow bags so long as they are about 15cm deep and have drainage holes in the bottom.

Cut-and-come-again varieties to try: Rocket, mizuna, lollo rosso, red or green oak leaf, red or green Batavia, cocarde, red salad bowl, any of the mustard leaves.

Average time to harvest: 5 – 8 weeks depending on variety and time of year.

Easy, yummy salad dressing

150ml local rapeseed oil or olive oil, 2 teaspoons honey, 2 tablespoons light vinegar such as white wine or cider apple, A pinch of salt, 1 teaspoon of Dijon or wholegrain mustard (optional).

Put all the ingredients into a jug or bowl and whisk together with a fork. Drizzle some of it over your salad and mix through with clean hands. Add more dressing if you need to.

This dressing will keep covered in a bowl or jug in the fridge for three weeks.

Make your salads more interesting

Salad leaves are the basis for lots of really interesting salads. To your leaves you can add thinly sliced onions, tomatoes, celery, beetroot, apple, pears or grated carrot. You can add chopped up soft herbs such as coriander, parsley, fennel and chives, and toasted nuts and seeds such as pine nuts, walnuts, pecans, almonds, pumpkin seeds, or sesame seeds. Let your imagination run wild and add whatever you find to be your favourite combination. Don't forget to add the salad dressing!

The potato originated in South America 8000 years ago and were brought back to Europe by the Spanish in 1536.

Potatoes are a great source of potassium – one medium potato has more potassium than a banana.

They also contain vitamins C and B6, fibre and iron.

Potatoes came to the UK and Ireland in the late 16th century.

Potatoes are vegetables but they contain a lot of starch (carbohydrate) which makes them more like rice, pasta and bread in terms of nutrition.

Potatoes are one of the world's most important food crops.

In October 1995 potatoes became the first vegetable to be grown in space.





Potatoes

Growing Potatoes

Buy seed potatoes from the garden centre or online to ensure they are virus and disease free. Early varieties of potatoes are great because they are ready much quicker and usually before blight might become a problem.

If planting outside in raised beds make a hole about 10cm deep and pop the potato in after the first frosts have passed (usually by the end of April). Early potatoes can be planted 30cm apart in rows 60cm apart. Cover the potatoes with soil and soon they will start growing. As they grow you can draw the surrounding soil up over the foliage which will give a bigger crop and prevent exposed potatoes from going green.

Potatoes grow really well in large bags or containers; you can get potato growing bags or use old compost bags, or indeed any large container about 30cm deep. Place a layer of compost about 15cm deep in the bottom of the bag and cover with compost.

As green shoots and leaves appear just cover those with more compost and continue to do this until the bag is full. Keep watered in dry weather, but not soaking.

Your potatoes will be ready when the potato plants produce flowers. Have a rummage under the soil and you can feel when they are ready. Like buried treasure!

Average time to harvest: 10 – 12 weeks (early varieties).

Perfect roast potatoes

As many potatoes as you want, Rapeseed or olive oil, Salt and pepper.

Pre-heat your oven to 200°C (gas mark 6). Wash and peel your potatoes, and cut into chunks no larger than a golf ball. Place in a large baking tray and add a good glug of oil, and season with salt and pepper. Place in the oven for about 40 minutes, giving them a good shake occasionally, until the potatoes are golden and crispy on the outside.



Potato bread

Northern Ireland is famous for potato bread, and it's not difficult to make. A really great way to use up leftover mashed potatoes.

600g potatoes (a floury type such as Maris Piper),
40g butter,
100g plain flour,
½ teaspoon of baking powder,
Good pinch of salt.

If you have left over mashed potatoes, use those, otherwise peel, boil and mash the potatoes and allow to cool to the point where you can handle them. Add the butter, flour and baking powder and shape into four rounds about 2.5cm thick.

Heat a large frying pan over a low heat and dust the pan with a little flour. Cook the potato breads for about 10 – 12 minutes on one side (until they begin to colour), and then flip over and do the same with the other side.

Potato apple bread

If you wanted to make potato apple bread, slice some
Armagh Bramley apples very thinly and toss with a little sugar.
When you come to make your potato bread round, roll them thinly on a floured surface to about 1cm thick. Layer some apples in the middle (not too near the edge) and place another round on the top pressing the edges firmly down. Cook as above. You can, of course add cooked Bramley apples to the centre if you like.









Did you know? Comber Early Potatoes have a Protected Geographic Indication (PGI) under European law. This means because of the soil and the climate they are really special and unique to the area around Comber, in Northern Ireland.



Podded peas, mange tout peas, sugar snap peas, French beans, runner beans and other beans all belong to a family of plants known as legumes.

Peas originated many thousands of years ago in central Asia and the Middle East.

They were one of the earliest domesticated food crops and have been found in the Egyptian tombs.

Peas and beans contain calcium, and iron, are high in fibre and a great source of protein.

The peas and beans we would eat fresh from our garden (or buy frozen) are actually immature pea pods and contain vitamins C, A, K along with valuable phytonutrients and antioxidants.

As an added bonus green peas and beans can be an environmentally friendly food. Research has shown that pea and bean crops increase the amount of nitrogen available in the soil without the need for added fertiliser which helps the next crop to grow healthily.

As the natural sugars in fresh peas rapidly change to starch once picked, frozen peas are a great way to maintain the colour, taste and texture of the fresh pea, without losing the nutritional value.



Beans, Peas, Pea-shoots

Growing peas and beans

Sow seeds indoors in March and plant out in April/May or sow directly into the ground when the weather warms up in spring. Sow 5cm deep, 6 – 10cm apart. Peas will need supported with bamboo canes or sticks as they grow.

Dwarf pea varieties grow really well in large pots or containers and do not need support.

Average time to harvest:

Peas sown in June should be ready to harvest in September.

Speedy pea shoots

These pea tendrils will give you a tasty pea flavour without the wait! Use recycled disposable plastic cups or yoghurt pots. Any dried pea will do. You can soak the peas in cold water for an hour or overnight beforehand which will speed up the germination process, but it's not necessary. 34 fill your pot with compost, dampen slightly and scatter 8 – 10 peas over the surface. Cover with compost, keep moist but not wet and in about three weeks when the pea shoots are 8 – 10cm high cut them off with a pair of scissors. If you cut them

about 3cm up (above the first set of leaves) they will regrow to give you another crop. Pea shoots are great just eaten as a snack or tossed into salad. They taste just like fresh peas.

All peas are delicious eaten straight off the plant or slice and scatter raw into salads.

Perfectly perky peas

One of the best ways to enjoy peas, mange tout, sugar snap peas and French beans is to lightly steam or boil them for a very short time.

Bring a saucepan of water to the boil (with or without salt). If you are not using a steamer, pop the French beans, sugar snap peas or mange tout into the boiling water and boil until just tender (3 - 4 minutes). Drain and toss with a knob of butter or rapeseed/olive oil, a sprinkle of salt and a squeeze of lemon juice if you have it.



Tomatoes are thought to have originated in South America in Peru and were introduced to Europe in the late 14th century.

About 160 million tonnes of tomatoes are produced in the world every year.

They are a good source of vitamin C and supply some vitamins including E, A, folate and dietary fibre.

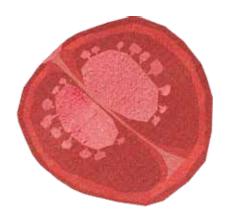
Tomatoes are the richest source of lypocene, a powerful antioxidant and also contain calcium and potassium.

Tomatoes are technically a fruit, not a vegetable.

There are over 10,000 different varieties of tomato.

La Tomatina is a food festival in a Spanish town in Valencia where tens of thousands of people throw over-ripe tomatoes at each other for fun!





Tomatoes



Growing tomatoes

Tomatoes are easy to grow from seed in late spring and can be grown on in really large pots or grow-bags. If growing outdoors look for "blight resistant" varieties or "outdoor varieties". Cherry (small) tomatoes seem to ripen more easily in our climate. Tomato plants generally need supporting with bamboo canes, but "bush" or "basket" varieties do not need any support or side shooting and do well in large pots or hanging baskets. Try varieties such as 'Tumbling Tom' (red or yellow), 'Hundreds and Thousands' or 'Tumbler'.

Average time to harvest:

Seeds sown indoors during February/March should produce plants which fruit continuously through July to October.

Tasty tomato salad

5 ripe tomatoes,
1 clove garlic, crushed,
½ small red onion,
2 tablespoons rapeseed
or olive oil,
Juice of half a lemon,
Salt and freshly ground black
pepper, to taste,
A handful of fresh herbs
(basil, mint, parsley or chives).

Thinly slice the tomatoes and the onion and lay out on a large flat plate in layers, adding a sprinkle of salt and pepper between layers. Mix the crushed garlic, oil, lemon juice and finely chopped herbs in a bowl and drizzle over the whole plate. Allow to sit for half an hour so that the tomato releases its juices and the flavours combine. Serve with crusty bread to mop up the juices or as a side dish with roast chicken, fish or a green salad.



Home-made tomato ketchup

A great way to use up tomatoes which are a bit over-ripe.

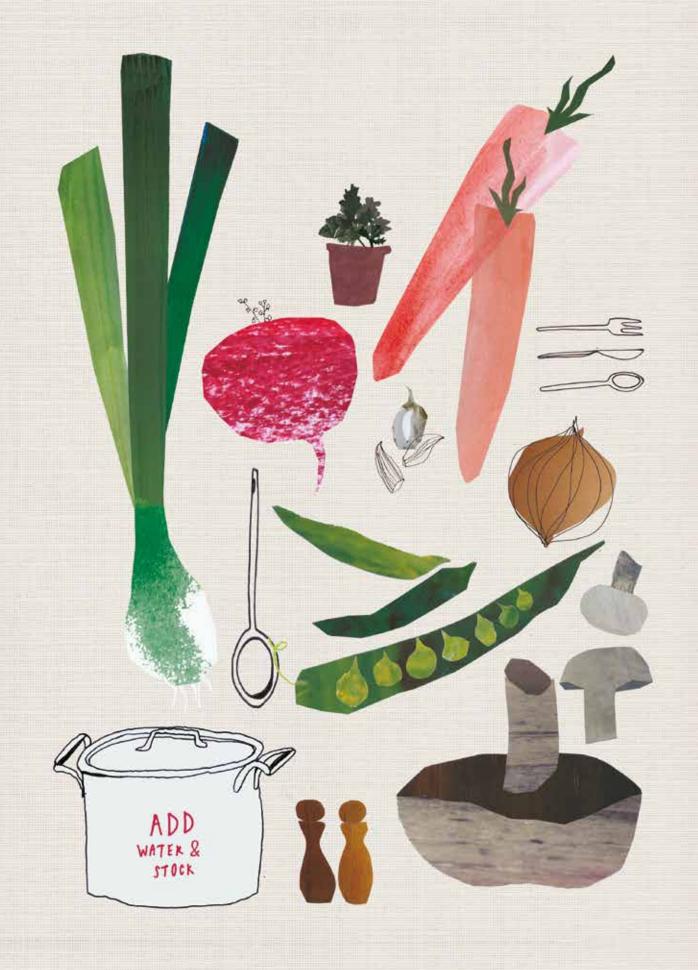
2 tablespoons rapeseed or olive oil,
220g onions, peeled and chopped,
600g tomatoes, chopped,
2 garlic cloves peeled
and crushed,
75ml white wine vinegar,
75g brown sugar,
A pinch of cayenne pepper
or chilli flakes,
½ teaspoon ground all spice,
½ teaspoon ground cloves,
½ teaspoon salt,
½ teaspoon freshly
ground black pepper.

Heat the olive oil in a large saucepan, add the onions and stir over a medium heat until cooked and beginning to colour. Add the rest of the ingredients and simmer for about 30 minutes with the lid on. Everything should be very soft at this stage.

Remove from the heat and whiz everything together with a hand blender or in a liquidiser. Push through a sieve into a clean saucepan. If you don't have a liquidiser or blender you can mash the mixture with a potato masher and then push through a sieve or leave the mixture chunky. Simmer, uncovered and stirring regularly, for about 20 – 30 minutes until the mixture thickens.

Pour into sterilised jars or bottles. The ketchup also freezes well.





VEGETABLE SOUP

2 large onions
4 carrots
2 sticks of celery
1 leek
2 medium potatoes
2 litres of vegetable stock
(using low salt stock cubes is fine)

2 tablespoons of
rapeseed or olive oil
2 fresh (or 1 dried) bay leaf
Good handful of fresh
parsley, chives or other herb,
finely chopped
Salt and pepper to taste

Wash, peel and chop up all the vegetables so that the pieces are roughly similar in size.

Put a large pot on the hob over a medium heat, add the oil, and fry the onions and leek gently until lightly browned.

Add the rest of the chopped up vegetables, the stock and bay leaf. Put a lid on and simmer everything gently for about 20 minutes.

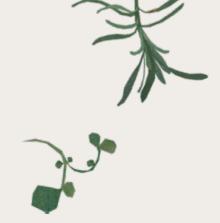
When the soup is ready, take out the bay leaf, add salt and pepper to taste, and sprinkle with the chopped parsley or other herbs.

You can make this delicious soup into a more substantial meal by adding dried pasta or a tin of drained cannellini beans or chickpeas 10 minutes before the end of the cooking time.

Experiment by adding any spare vegetables you have in the fridge or garden.

This soup serves 8, or will also freeze really well.

Herbs and their uses



Herbs usually fall into two categories – perennial and annual/biennial.
Perennial just means that they are a permanent plant that may grow more slowly or die right back in winter, but will regenerate and grow even stronger come the next spring.
Perennial herbs are a great investment as they will keep producing for many years once they are established.

Annual herbs either will not survive the winter, or their life cycle just means they will flower, seed and die in one season.

Here is a list of the most common herbs that you might grow for use in the kitchen.

All herbs should be washed gently in cold water and will keep in a covered container or clean plastic bag in the fridge for 5 – 6 days.

Chives (Perennial)

Harvest chives by cutting them down at the very base of the plant and they will regenerate cleanly and more finely. If there are brown bits at the top or bottom of your fistful of chives cut the top and bottom inches off and give the bunch a shake to remove the dead bits. Wash and chop finely.

The beautiful purple chive flower is made up of lots of tiny little flowers with a zingy onion flavour. Pick these off and sprinkle over your favourite salad.

Chives will keep growing from early spring to autumn.

Uses for chives:

Chive mayonnaise, chive butter, chive crème fraiche.
As a substitute (or addition to) scallions in champ.
As a garnish over buttery new potatoes.
The chives and the individual flowerets are great sprinkled into any salad.
In scrambled eggs or omelettes. In a herb salad.

Coriander and Dill (Annuals – short season only)

Coriander and dill can be quite tricky to grow as they will come up, perhaps give two cuttings and then tend to bolt (flower, then go to seed and die). Cut as for parsley about 5cm above the ground.

As with all herbs, the flowers are pretty and edible, but once removed the plants should come out and re-sow something else. When growing from seed, sow a row every two – three weeks to have a more constant supply.

Uses for coriander and dill:

Both herbs are best used sprinkled raw over your finished dish or at the very end of cooking.

Coriander is delicious with Asian type noodles, rice or curries.

Dill is great with eggs or fish.

Make coriander or dill butter.

Chop either finely into salads, sandwiches or mayonnaise.



Bay (Perennial)

A bay tree is a great addition to any edible garden and should keep growing for many years. Take off individual leaves as you need them.

Uses for bay:

Add crushed bay leaves to stews, stocks, and soups and remove when finished cooking. Add a bay leaf or two to the water for boiling pasta. Add to the milk for béchamel or cheese sauce.

Add when making tomato sauces. Stuff some into fish for baking or bake the fish on a layer of bay. As above with chicken.

Herb Fennel (Perennial)

Herb fennel will grow very tall and you can pick the individual feathery fronds off, wash and finely chop. When they flower, the tiny yellow flowers are also good to eat and then you also get the fennel seeds which can be dried and kept for use over the winter.

Much more aromatic and sweet than dill and less troublesome to grow.

Uses for herb fennel:

Fresh young leaves look and taste great in a mixed or herb salad.
Chop finely in sandwiches or into mayonnaise.
Cook with fish or chicken.
The yellow flowers are fresh and clean tasting and good for savoury or sweet dishes.
Finely chopped with tomatoes or in a potato salad.

Parsley

Flat leaf and curly (Biennial – needs replacing every 1.5 – 2 years)

Harvest both parsley and coriander by cutting about 5cm (2") above the ground or pick off the individual stalks at the base. If the parsley produces a flower spike cut this off immediately.

Uses for parsley:

Use to stretch out a basil
pesto, or use as a parsley
pesto in its own right.
Use in a salad.
Use in a herb salad.
Parsley mayonnaise.
Parsley butter.
For omelettes and egg dishes.
Great with any root
vegetable soup.





Rosemary (Perennial)

It is unlikely that you will ever have too much rosemary, and even if you do it will only grow and thrive as it doesn't need constant harvesting.

When harvesting both rosemary and thyme you are aiming for a haircut type trim of the new growth every two – three weeks during the summer so the plant will keep producing. If you cut down into the old wood, the plant will take a long time to recover.

Uses for rosemary:

Add to trays of roasting vegetables or potatoes.
Add to soups, stews and stocks.
Chopped finely into stuffing for pork or lamb.
Great chopped finely into apple sauce.

Thyme (Perennial)

As for rosemary, thyme does not need regular trimming and a short haircut type trim is what you're aiming for. Tender new stems can be chopped whole, but with older stems which can be woody strip the leaves off the stem before using.

The tiny thyme flowers are edible and unlike rosemary, it is good to cut the flowers off once they have died to keep the plant going and tidy looking.

Uses for thyme:

Chop flowers and leaves over tomato salad.
With roasted or braised root vegetables.
For roast potatoes.
In soups, stews and stocks.

Mint (Perennial)

Mint can really spread and take over a whole bed in just a couple of years so it is a good idea to grow it in large pots, or put it in a corner somewhere on its own.

When harvesting mint, cut the whole sprig close to the ground about 3 – 5cm (1" – 2") up, even if you only need the top part. Cut the bottom off the stalk and discard; this ensures fresh new growth. It is important to cut mint rather than pull it as it will come up by the roots.

Uses for mint:

Mint tea.

Adds a great flavour to peas or when boiled with new potatoes. Good chopped finely with strawberries or other fruit salad. For a mint sauce. Pea, ham and mint soup. Put in jugs of cold drinks.



The earliest records of rhubarb date back to 2,700BC in China where it was used for medicinal purposes.

Although we use rhubarb as a fruit it is technically a vegetable.

Rhubarb is a good source of dietary fibre and contains vitamins C, K and A.

Rhubarb is one of the best sources of calcium in the plant kingdom and contains useful minerals including manganese, iron and potassium.

Depending on the variety, rhubarb stalks can be red, green or reddish green. All are delicious to eat.

Rhubarb

Growing rhubarb

Rhubarb is easy to grow and once established will keep going for many years and can be harvested from March to July. Just buy a crown and plant in autumn or early spring, allowing 90cm between plants. Enrich the planting hole with well-rotted manure or compost. Do not pick any stalks the first year to let the plant establish. To harvest, pull out stalks from the base rather than cutting them, and discard the leaves which are poisonous.

Roasted rhubarb

Wash and trim the rhubarb stalks and cut into short lengths. Put in an ovenproof dish and grate the zest of one orange over the top (optional). Sprinkle with sugar (you can always add more later), cover with a lid or some tinfoil and roast at 160°C (gas mark 3) for about 30 – 40 minutes or until tender.

Serve with custard, cream, porridge, natural yoghurt, ice cream or on pancakes.

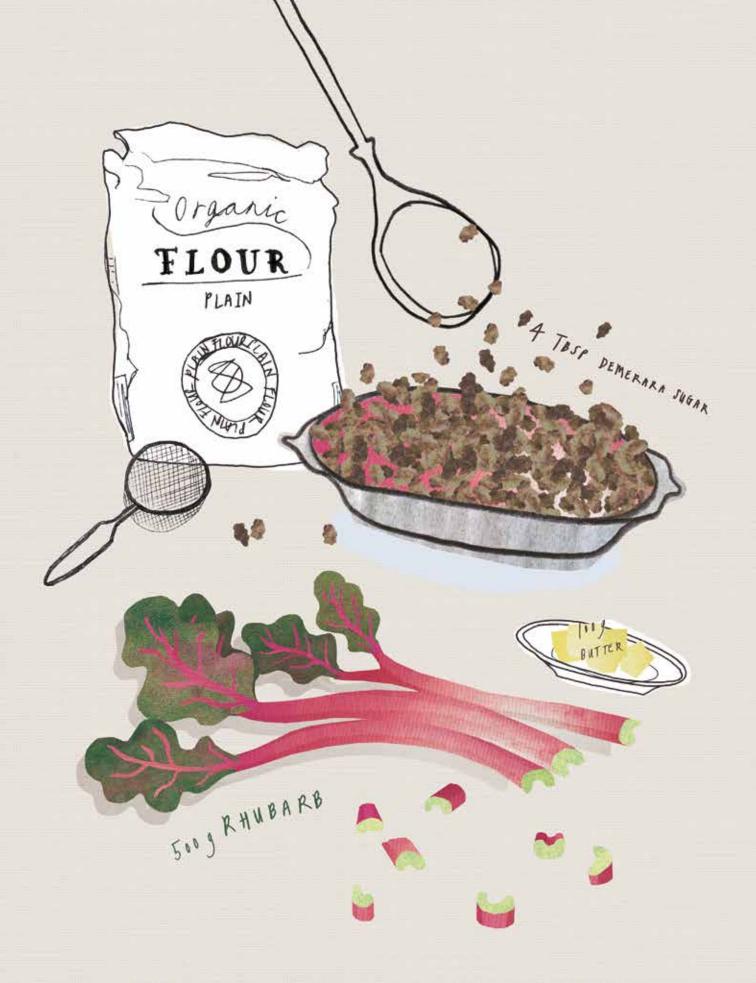
Variations: You can make a crumble with strawberries, raspberries, blueberries, plums, pears, Bramley apples or a combination of soft fruits. Sweeter fruits will take less sugar. You can also add chopped nuts such as almonds or hazelnuts to the crumble mixture. Experiment!

Rhubarb crumble

See page 30.







RHUBARB CRUMBLE

For the filling:

500g rhubarb, washed 100g caster sugar

For the topping:

100g plain flour 100g porridge oats 100g butter, cubed 4 tablespoons demerara sugar

Cut the rhubarb into short lengths and place in an oven proof pie dish. Sprinkle the caster sugar over the rhubarb. Mix the remaining flour, oats and sugar in a large bowl with the butter and rub in lightly until you have the texture of coarse breadcrumbs.

Sprinkle the crumble over the rhubarb and bake in a preheated oven at 180°C (gas mark 4) for about 40 minutes until the topping is golden and the rhubarb mixture is bubbling up. Allow to cool slightly and serve with custard, cream, natural yoghurt or ice cream. Carrots can be traced back about 5,000 years through paintings and other historical documents.

The first carrots were purple, not orange, and they can also be white, yellow and red. The orange carrot was developed by the Dutch in the 17th century.

The carrot is in the top ten of most economically important global vegetable crops.

Sweet and crunchy carrots contain natural sugars and lots of anti-oxidants, vitamins and dietary fibre. They are low in calories too!

They are exceptionally rich source of carotenes and vitamin A which helps with eye sight – that's why children are told to eat carrots so they will be able to see in the dark!

They also contain healthy levels of vitamin C and minerals like copper, calcium, potassium, manganese and phosphorus.



Carrots

Growing carrots

Sow seed directly in the soil anytime from March to August in rows 1cm deep, 10 – 15cm apart. Thin the seedlings to 6 – 8cm apart. Carrots can also be sown in deep pots or other deep recycled containers with drainage holes in the bottom. Sow a small amount every three to four weeks for a continuous supply.

Average time to harvest: ten weeks (early), sixteen weeks (main crop).

Kickin' carrot salad

500g carrots thinly sliced, grated or made into ribbons with a vegetable peeler, 3 tablespoons of local honey, Juice of 1 orange, 4 tablespoons local rapeseed oil, 200g washed salad leaves, 80g golden raisins.

Whisk together the honey, orange juice and oil and season to taste with salt and ground black pepper (optional). To serve, toss the carrots in a bowl with the raisins and salad leaves. Pour the dressing over, toss well and pile into a serving bowl. You could scatter with toasted seeds or nuts (optional).

Cool and creamy dip for carrots

1 x 500ml tub local plain or Greek style yoghurt, Big handful of chives or spring onions, finely sliced, 1 tablespoon chopped fresh mint, 1 tablespoon chopped fennel, dill or other herb.

Mix everything together, drizzle with rapeseed or olive oil and serve. Wash and peel a big handful of carrots and cut into long chunks. You can also use other raw vegetables such as celery, cucumber, broccoli, baby tomatoes or whatever you fancy. Happy dipping!

Roasting carrots

Wash and peel your carrots (if necessary). Cut into even sized pieces and put on a roasting tray with a drizzle of rapeseed oil and a little salt.

If you have any rosemary or thyme, chop finely and sprinkle a little over the top.

Put into a preheated oven at 200°C (gas mark 6) and cook for 25 – 30 minutes stirring once half way through. This amazing berry has a long history and has been enjoyed since Roman times.

They are the only fruit that have their seeds on the outside and the average berry has about 200 of them.

Strawberries are amongst the top 20 fruits in antioxidant capacity and are a good source of manganese and potassium.

Just one serving (about 8 – 10 strawberries) provides more vitamin C than an orange.

These little red berries are packed with vitamins, fibre, and especially high levels of antioxidants known as polyphenols.

Native to many parts of the world, 100s of varieties of strawberries exist due to cross breeding techniques.

They are the first fruit to ripen in the spring (as rhubarb is technically a vegetable!).

There is a museum in Belgium dedicated to the strawberry.

Strawberries at room temperature taste sweeter than cold strawberries.



Strawberries

Who doesn't love strawberries? They are one of the summer's delights and look and smell as beautiful as they taste.

Growing Strawberries

Bearing in mind the school holidays in July and August, it would be best to plant either early varieties — (Honeoye or Rosie or Gariguette) or perpetual varieties which should crop from mid-August to mid-October (Albion, Flamenco, Mara des Bois or Finesse).

If you are growing at home, mid-season ripening varieties are just fine.

Plant strawberry runners or plants every 30 – 40cm (12" – 16") in rows spaced at 75cm (30") apart.

Strawberry runners can be bought October – November or March – July. Pot grown strawberry plants are usually available from late spring and tend to be a little bit more expensive. Strawberries do well in large hanging baskets and pots too.

The very best way to eat strawberries is just as they are (with ice cream maybe?). You can slice them on top of your breakfast cereal or porridge and also slice them into salads.

Strawberry Eton Mess

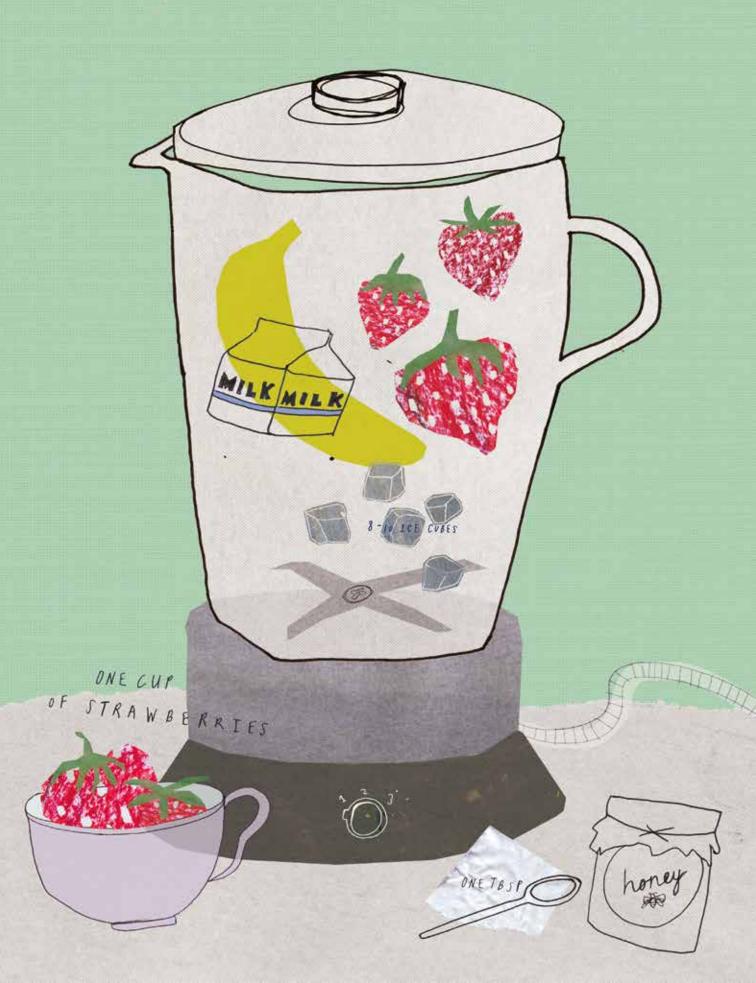
450g strawberries, 6 – 8 meringue nests, 560ml double cream.

Halve the strawberries, or slice them into smaller pieces if they are very large. Break the meringues into large chunks. Whip the cream into soft peaks and then fold the cream, meringues and strawberries together. Serve in a big bowl or six individual dishes.

For a healthier option you can use half (280ml) double cream and half (280ml) of Greek or plain yoghurt.

Strawberry & banana smoothie

See page 34.



Shake SHAKE

Strawberry & Banana Smoothie

1 cup strawberries
1 cup milk or yoghurt
1 banana
8 – 10 ice cubes
1 tablespoon local honey

Blend all of the ingredients together and drink. If you don't have a blender, mush the strawberries up with a fork, use half a banana, leave out the ice cubes, put it all in a clean jam jar and shake until it's mixed well.

The apple tree originated in Central Asia about 6,500BC.

Apples are a great source of dietary fibre, vitamin C and B-complex vitamins.

Honey bees are commonly used to pollinate apple trees.

Apple trees blossom in spring with the fruit maturing in autumn.

Apples contain an impressive list of phytonutrients and antioxidants.

As there are more than 7,500 varieties of apples grown around the world it would take you more than 20 years to try them all if you ate one a day!

Did you know that fruit grown in temperate climates like ours (where it is cooler and it rains a lot) are nutritionally better for you than exotic fruit?



Growing apples

Modern varieties of fruit trees don't need to take up a lot of room. Developed for smaller gardens, lots of varieties are now available on dwarfing rootstock which means you can fit more in, the fruit is easier to pick and the trees are simple to prune. Dwarf fruit trees and columnar fruit trees can be grown in large pots. Choose self-fertile varieties if you only have room for one or two.

Heritage and native varieties of fruit are important, and if you have the room then choose a traditional variety. Heritage varieties are also available on dwarfing root stocks if you buy from a specialist supplier such as Brogdale, Future Forests or Irish Seed Savers (see Useful Resources).

Adding sliced apples to salads or mixed fruit salads will add freshness and crunch. If you feel more adventurous, try the following recipes.

Armagh Bramley apple crumble

Follow the recipe for rhubarb crumble (see page 30) and substitute the rhubarb for peeled, cored and chopped Armagh Bramley apples. You could also use a combination of fruit depending on what is in season.

Baked apples

6 local eating apples,
Large handful of sultanas,
2 tablespoons brown sugar
(like muscovado or demerara),
Good big knob of butter,
1 teaspoon of ground
cinnamon (optional).

Preheat the oven to 200°C (gas mark 6). Core the apples, and score the skin around the circumference with a knife to allow for expansion. Place the apples on a baking tray or ovenproof dish. Mix the sultanas and sugar and cinnamon together in a bowl and push into the cavity of each apple. Top each with a knob of butter and sprinkle with a little more sugar. Cook for 20 minutes or until the apples are cooked through.



Apple compote

500g Armagh Bramley apples (peeled and cored), 120g sugar, 2 tablespoons of water or apple juice.

Cut the apples into chunks, add to a saucepan and add the sugar and water. Put on a low heat and stir the apples until the sugar dissolves and juice begins to come out of the apples. Put a lid on the saucepan and stew gently for about 10 minutes, stirring occasionally.

If you use eating apples, much less sugar is required. You could add ground cinnamon, nutmeg or vanilla at the cooking stage if you like. Experiment!

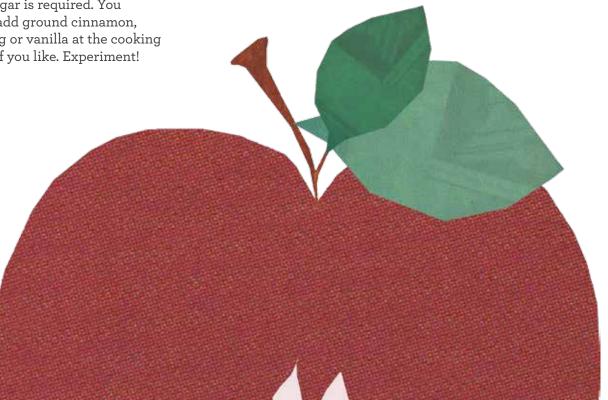
Serve all of the above with custard, ice cream or natural yoghurt.

This apple compote is delicious to have as dessert, on top of granola, porridge, yoghurt or pancakes or as an apple sauce with pork.

Note: You can make a compote out of any fruit. With sweeter fruits such as plums, pears and strawberries you need less (if any) sugar. Crumbles and compotes are a great way to use up fruit that is a bit tired or over-ripe.

Did you know?

Armagh Bramley apples have Protected Geographic Indication (PGI) under European law. This means that because of the soil and the climate they are really special and unique to County Armagh, in Northern Ireland.



USEFUL RESOURCES

Websites

RHS Campaign for School Gardening – they also provide a free start-up kit and newsletters schoolgardening.rhs.org.uk/about-us

Garden Organic School's Resources gardenorganic.org.uk/schools

Countryside Classroom countrysideclassroom.org.uk

Gardening with Children gardeningwithchildren.co.uk

GIY (Grow It Yourself) – they also have a school's growing campaign with free starter packs giyinternational.org

Agri Aware Incredible Edibles incredibleedibles.ie

Grow Your Own Potatoes – free seed potatoes for schools (limited) gyop.potato.org.uk

The Conservation Volunteers – native trees and hedging tev.org.uk/northernireland/tree-nursery

References

(1) http://www.foodgrowingschools.org/resources/files/ FGIS%20executive%20summary%20for%20www.PDF

(2) http://www.safefood.eu/SafeFood/
media/SafeFoodLibrary/Documents/
Publications/Consumer/2009_
AGoodPracticeGuideForSchoolFoodInitiatives1.pdf
(Page 84, B.5. School Growing Projects.)

(3) http://www.northernireland.gov.uk/news-deti-060315-foster-announces-establishment

Fruit trees, bushes, plants & seeds sites

Local garden centres will probably stock everything you need, but when it comes to buying either early or late maturing varieties of fruit, dwarf fruit trees and/or heritage varieties, then a specialist website is preferable, as they have a much greater variety available.

Fruit bushes and trees

Ken Muir

kenmuir.co.uk

Brogdale

brogdaleonline.co.uk

Pomona Fruits

pomonafruits.co.uk

Irish Seed Savers – Irish heritage seed bank and fruit collection

store.irishseedsavers.ie/Organic_Fruit_Trees_s/42.htm

Future Forests – Irish varieties on small root stock futureforests.net/default.htm

Blackmoor Fruit Nursery

blackmoor.co.uk

Seeds, seed potatoes, onion sets, garlic, strawberry runners

Dobies of Devon

dobies.co.uk

Sutton's Seeds

suttons.co.uk

D.T. Brown

dtbrownseeds.co.uk

Thompson and Morgan

thompson-morgan.com/fruit

GIY Ireland

giyinternational.org/shop

Organic Centre

theorganiccentre.ie/shop

Irish Seed Savers

irishseedsavers.ie

Online plug plant kit specialists although most seed suppliers supply plug plants too. quickcrop.co.uk

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RUMD GROWING GUIDE

SEPTEMBER

September is officially the end of the summer, and the beginning of the school year.

If you haven't got a vegetable garden or growing space yet, now is a perfect time to start!

If you already have a vegetable garden:

There will undoubtedly be lots of weeds, so pull them out and put them in the compost (though not the weeds with seeds on them).

If your veg garden has been looked after somewhat during the school holidays you could be harvesting:

Courgettes, beetroot, French beans, pumpkins, chives, spinach, onions (planted in spring), leeks, tomatoes, herbs, kale.

Apples, plums and pears.

Berries - blueberries, blackcurrants and late maturing strawberries.

The last of the rhubarb.

You could be sowing or planting:

Oriental or winter salad leaves, radish, plug plants of kale, cauliflower, leeks, and spring onions.

Plant out strawberry plants:

They will probably stay in the same place producing lovely strawberries for three to four years so bear this in mind when choosing a place.

Considering the school holidays in July and August, it would be best to plant either early varieties – (Honeoye or Rosie or Gariguette) or perpetual varieties which should crop right through to October (Albion, Flamenco, Mara des Bois)

Strawberry runners can be bought October – November or March – July. Pot grown strawberry plants are usually available from late spring and tend to be a little bit more expensive.

Plant strawberry runners every 30 – 40cm (12" – 16") in rows spaced at 75cm (30") apart.

Other things to do:

If you have empty space in your veg beds, cover with a cosy layer of compost, well-rotted manure, or sow an over-wintering green manure which can be dug into the soil in springtime.

Covering your empty space will protect the soil from compaction and loss of nutrients through the action of winter rain. You can also simply cover with cardboard or black plastic, although be sure to weight this down.

Green manures are plants which help to add nutrients and fertility to your soil – these include phacelia, field beans, dwarf French beans, vetch and clovers.

In the classroom:

If you don't have a garden yet or are looking for a quick growing project, you could grow pea shoots or micro cress.

Use recycled disposable plastic cups or yoghurt pots. Any dried pea will do. You can soak the peas in cold water for an hour or overnight beforehand which will speed up the germination process, but it's not necessary. 34 fill your pot with compost, dampen slightly and scatter 8 - 10 peas over the surface. Cover with compost, keep moist but not wet and in about three weeks when the pea shoots are 8 - 10cm high cut them off with a pair of scissors. If you cut them about 3cm up (above the first set of leaves) they will regrow to give you another crop. Pea shoots are great just eaten as a snack or tossed into salad. They taste just like fresh peas.

For funky micro cress "hair", save some empty egg shells from hard boiled eggs with the top off and draw some faces on them. Mostly fill with compost, dampen slightly and sow some mustard cress. Cover lightly with more compost, keep moist but not wet and in a couple of weeks the mustard cress will germinate and grow. Cut off with a pair of scissors and scatter over salad or into sandwiches.

Make a compost bin?

OCTOBER

NOVEMBER

October can be surprisingly mild and pleasant, and even though the days are shorter it's good to be outdoors whenever you can.

If you already have a vegetable garden:

Pull up crops that have finished harvesting and put on the compost heap.

You may well still be harvesting:

Pumpkins, squashes, courgettes, late tomatoes, French beans, beetroot, kale, carrot.

You could be sowing or planting:

Garlic and onions for overwintering.

Onions can be bought in the garden centre or online as baby onions or "sets".

When growing onions from sets, plant the bulbs so that the tip of each bulb is just protruding through the soil surface.

Leave a space of 10cm (4") between each bulb, and 30cm (12") between each row. If birds pull out the sets in the first few days just pop them back in again.



Garlic

Garlic bulbs as above can be bought in the garden centre or online. Carefully split the bulb into individual cloves. Each bulb contains about 12 cloves which is what you plant. Plant each clove at a depth of 2cm (1") below the surface of the soil and 10cm (4") apart, leaving 40 – 45cm (16" – 18") between each row.

Other things to do:

Cover the empty spaces in your beds as in September if you haven't already done so.

Put out bird feeders, bird boxes and bug boxes. You could try making these as a project.

Start collecting autumn leaves to make leaf mould. Leaf mould is a great soil improver, and all you need to do is either put it in a big heap somewhere in the garden out of the way and cover with black plastic or old carpet to stop the leaves blowing away. In about a year the worms will have done their work and you'll have lovely crumbling leaf mould to add to your growing beds. You can also stuff black bin bags with the leaves, puncture a few holes in the bags and leave them somewhere to rot down.

Both garlic cloves and onion sets should be planted flat end down, pointed up. A chilly month normally but a good time to think about adding some permanent fruit to your garden. Fruit trees and bushes take very well when planted out in the dormant season.

If you already have a vegetable garden:

Pull up crops that have finished harvesting and put on the compost heap.

Cover the empty spaces in your beds as in September if you haven't already done so.

You could be planting:

Fruit Bushes

Now is a good time to plant out soft fruit bushes such as blackcurrants and blueberries. Bearing in mind the school holidays, late cropping varieties are best.

If you have raised beds don't use up the space with fruit bushes as it is unnecessary and they take up too much room. Fruit bushes will be happy in open soil which has been improved with compost or manure. Choose a sheltered and sunny position if possible. Plant 1.5m (5ft) apart.

Blueberries need added ericaceous (acid) compost. Good quality potted fruit bushes cost approx £15 – £20 each but a cheaper option is bare-rooted plants which are available between late November to late March.

DECEMBER

For blackcurrants try Ben Alder.

For blueberries, varieties like Jersey, Goldtraube or Chandler (late ripening) are suitable.

Raspberries – autumn fruiting raspberries are best as they usually crop after summer holidays and are easy to prune – just cut them all down when they have finished fruiting and they will start to regrow again in the spring.

Fruit Trees

Once established fruit trees create a food growing legacy in any school. They will be there, and productive for at least a generation, all being well.

Modern varieties don't take up a lot of room. Lots of varieties are available on dwarfing rootstock, so you can fit more in. The fruit is easier to pick and trees easier to prune. Dwarf fruit trees and columnar fruit trees can be grown in large pots.

Heritage and native varieties of fruit are important. If you have room choose a traditional variety. Heritage varieties are also available on dwarf root stocks from a specialist supplier (see Useful Resources).

You can read more about root stocks, but basically the smaller ones are:

M27: extreme dwarfing – grow up to 1.8m (6ft) – plant 2m apart or in a large pot.

M9: dwarfing – grow up to 2.2m (8ft) – plant 2.5m apart or in large pot – requires staking.

M26: semi dwarfing – grow up to 3m (10ft) – plant 3m apart – fruit in three – four years

Fruit trees bloom at different times so require a pollinator which blooms at around the same time. Fruit trees are categorised into flowering groups, early, mid and late season. Choose varieties that will help pollinate each other.

If you only have room for one tree, chose a self-fertile one. Family fruit trees can also be purchased with three varieties grafted onto the same tree.

Rhubarb

Rhubarb is technically a vegetable, but since it is usually eaten in sweet dishes, we normally think of it as a fruit. Rhubarb plants need no special care and once established will produce rhubarb stalks throughout the summer and into autumn for many years.

Rhubarb crowns should be planted between late November and late March, although potted plants can be planted almost any time, except in mid-summer if there is no-one there to water the new plants regularly.

Other Things To do

Plant garlic and onions if not done in October.

Collect leaves to make leaf mould as in September.

If you haven't already done so put out bird feeders, bird boxes and bug boxes.

December is a sleepy month in the garden, but that doesn't mean there is nothing to be done.

You could be harvesting:

Kale, Brussels sprouts, main crop carrots if your garden was kept going over the summer.

Add fertility around base of fruit bushes and fruit trees if you have them. This can be a layer of compost, well-rotted manure or a sprinkling of dried blood, fish and bone which you can get in the garden centre.

Decide what you want to grow next year and come up with a plan.

Make garden signs for the crops which you plan to grow next year.

If you haven't already done so put out bird feeders, bird boxes and bug boxes. You could try making these as a project.

Make compost:

Making compost is a natural process that transforms your kitchen and garden waste into a valuable and nutrient rich food for your plants. Basically you can make a pile of compostable material in an unused area of the garden, make a surround out of recycled pallets if you wish or use a large plastic compost bin. The idea is to layer up lots of material over time, turn it regularly to let air in, and nature will do the rest. It is a good idea to have more than one compost bin or heap so that when one

JANUARY

is full and breaking down you can start on a new one. It takes about six months to a year to make good compost depending on how often it is turned.

So many things can be composted, but never meat or cooked food.

Compostable material is normally described as "brown" (carbon rich) or "green" (nitrogen rich). You are aiming for more "browns" than "greens" in the ratio of about three – four brown to one green.

Brown - dry or woody material

Cardboard
Shredded paper
Egg shells
Newspaper
Sawdust
Wood shavings
Fallen leaves
Straw

Green - wet or recently growing material

Grass clippings
Apple cores
Banana skins
Coffee grounds
Tea bags
Fresh hedge clippings
Vegetable peelings
Plants that have finished cropping
Flowers
Seaweed
Weeds (that do not have seed heads)

Getting the balance right can sometimes be tricky, so if your compost is too wet add more cardboard or shredded paper, and if it is a little dry, add some water.

Your compost will be ready when it has broken down and is dark and crumbly and smells of the earth. Don't worry if there are some bigger "bits" still left in it; these can be added to the next compost heap.

Plant soft fruit bushes and small fruit plants if you have not already done so and the ground is not frozen. The best time to plant bare rooted trees and bushes is during the dormant season between November and April.

If you already have a vegetable garden:

If you have established fruit trees or soft fruit bushes now is a good time to prune them. Ask an experienced gardener or gardening parent for help or use the internet or YouTube to get simple instructions. You can also buy a book or if you purchase your trees and bushes from specialist internet sites they normally provide instructions.

Stone fruits such as plums and cherries are best pruned in the late summer when fruiting has finished.

Decide what is to be grown in the garden and make signs.

Shred Christmas tree branches for adding as a mulch to blueberries, cranberries or other acid loving plants.

Make a bug habitat out of a real Christmas tree trunk by attaching bug houses to the trunk.



FEBRUARY

MARCH

February can still be really cold and there isn't much to do outside in the veg garden.

If you already have a vegetable garden:

As in January, if you have established fruit trees and bushes now would be a good time to prune them.

Start sprouting (chitting) seed potatoes on the windowsill. Potatoes are categorised into first and second earlies and main crop potatoes. The early potatoes produce "new" potatoes much earlier (in about ten weeks) and main crop varieties take much longer to grow (about twenty weeks), but store through the winter.

For schools, early varieties would be best so that you can get a crop before the summer holidays, for example Swift, Rocket, Desiree, Pentland Javelin, or Charlotte potatoes. They will also be ready before blight might become a problem.

Special seed potatoes are available in the garden centre or on internet sites and you need to buy these as they will be certified virus free and you know what the variety is.

Chitting potatoes just means letting them develop sprouts so that the potatoes get a head start when they are put into the soil. To chit potatoes, simply place them upright, with their 'eyes' up (the eyes are the bits you normally cut off when peeling potatoes) into a seed tray or use empty egg cartons. Place them in a light but not sunny, cool, frost-free place, somewhere like a garage with a window or a porch. In about 4 – 6 weeks you should see short green shoots about 2 – 3cms long from the eyes of each tuber. Then they will be ready to plant in early April hopefully after the first frosts have gone (see April).

Other things to do:

As the days lengthen you could grow pea shoots and/or cress indoors in pots on a bright window sill (see September).

Order or buy the seeds for the crops you want to grow this season. Catalogues have great variety or buy from the local garden centre what you need.

Now is probably your last chance to buy bare rooted fruit trees for your garden. Potted trees can be sourced at any time of the year but are more expensive. March is officially the beginning of spring, but can be really cold with unpredictable weather. Frosts, hailstones, even snow is not uncommon in March and even as the soil begins to warm up, it's better to be patient before sowing anything outside.

You could be harvesting:

Parsnips, Brussels sprouts, kale, purple sprouting broccoli, the last of the leeks.

To do:

Weeds will certainly be growing given the chance, so keep beds and containers weeded to stop them seeding.

Sow vegetable seeds indoors according to what you want to grow.

Bush varieties of tomatoes are great for tubs and hanging baskets – try 'Hundreds and Thousands', 'Tumbler' or 'Tumbling Tom' Red or Yellow. Now is a good time to sow peas and beans. You could also start some cut-and-comeagain salad leaves indoors and sow some directly outside as well if the weather is pleasant.

Sowing seeds indoors is simple. Either use modular trays or 9cm pots. Mostly fill with compost, any fine compost will do. If the compost feels dry, water the pots or modules before sowing the seed. Sprinkle one or two seeds on the top of the compost in each

APRIL

pot or in each module and lightly cover with more compost. Water lightly and put them in a light place to germinate. Larger seeds like peas, beans and sweetcorn require a greater covering of compost. Read the instructions on the back of the seed packet but as a rule seeds normally need sown to the depth of their diameter or a little bit more. A common mistake is to sow seeds too deeply.

Germination (the appearance of a tiny green shoot) can take anywhere between 4 and 14 days depending on the seed variety and the temperature.

Don't be tempted to water too much as this can rot the seed or kill the seedling. Only water if the surface of the compost looks very dry.

Other things to do:

In the classroom grow pea shoots in pots.

Order perpetual strawberry runners if not already done in the autumn (see September).

If not already done in the autumn, plant onion sets and garlic.

Order or buy some seed potatoes if not already done in February.

Plant out chitted seed potatoes mid-month if your garden is somewhat protected from frosts in say an urban environment or by the sea. Otherwise potatoes are best left until after the last frosts have gone in April... hopefully! (See April)

April should bring some better weather and see the last of the frosts. At last you can really get going with planting and sowing.

You could be harvesting:

Kale and purple sprouting broccoli, salad leaves, a variety of herbs.

Sow or plant out:

Sow peas, broad beans, mange tout in pots for planting out later or directly in the soil if it is warm enough. Unless you grow dwarf varieties, all of the pea and bean family require some support to climb up such as a wigwam of bamboo poles or hazel sticks.

Sow beetroot, spinach, carrots, and radish seeds directly into beds.

Sow salad leaf seeds directly into beds.

Plant out herbs - chives, thyme, rosemary, oregano, and fennel.

Sow parsley and coriander directly from seed.

Start to re-pot and/or harden off indoor grown seedlings.

Hardening off just means that you gradually adjust the seedling to the temperatures outdoors. If the weather is quite good, bring the pots outside for a few hours during the day and back in again at night. After about a week the young plants should be acclimatised enough to stay out all night (somewhere sheltered), and then can be planted out into position after a few more days.

To do:

Plant out potatoes (chitted or not).

If planting outside in raised beds make a hole about 10cm deep and pop the potato in. Early potatoes can be planted 30cm apart in rows 60cm apart. Cover the potatoes with soil and soon they will start growing. As they grow you can draw the surrounding soil up over the foliage which will give a bigger crop and prevent exposed potatoes from going green.

Potatoes grow really well in large bags or containers; you can get potato growing bags or use old compost bags, or indeed any large container about 40cm deep. Place a layer of compost about 15cm deep in the bottom of the bag, put in three potatoes and cover with compost. As green shoots and leaves appear just cover those with more compost and continue to do this until the bag is full. Keep watered, but not soaking.

Your potatoes will be ready when the potato plants produce flowers by the end of June.

Keep weeding.

If you have rhubarb growing that is more than one year old, you should be able to pull some this month!

MAY

JUNE

May is the month when everything takes off in the garden as the days are getting longer and the weather is warming up.

You could be harvesting:

Rhubarb, radish, salad leaves, herbs, early garlic, the last of the kale and purple sprouting broccoli.

To do:

Keep weeding

Remember to water in dry weather, especially new seedlings.

'Earth-up' potatoes if you have them growing in open ground or raised beds.

Plant out lettuce, parsley, peas, beans if you have been growing them inside – remember to harden them off first (as in April).

Plant seeds of pumpkins or courgettes inside in 9cm pots.

Harvest herbs – chives, thyme, rosemary, parsley.



Sow kale and purple sprouting broccoli.

Plant edible flowers such as violas, nasturtiums and calendula. They are delicious in salads and will also attract pollinators to your garden.

Protect your crops from slugs.

Slugs are the nemesis of every gardener. If you see nibbled edges, or worse, a row of seedlings practically disappear overnight then it is probably marauding slugs! If you see them, pick them off, although this is unlikely in daylight hours.

You can buy organically approved (ferric phosphate) slug pellets in the garden centre which do not cause harm to other wildlife and are effective.

You can also put out empty grapefruit halves or indeed an upturned flowerpot to act as a trap – just remember to check them daily and remove the slugs!

Go wild...

Whilst we all want our vegetable growing spaces to be weed free and tidy, it's really good to let a small area at the edges of the garden go wild with long grasses and native plants. This provides a fantastic home and habitat for wildlife and insects.

June is the month when all your hard work should start to pay off!

You could be harvesting:

Early potatoes, early strawberries, parsley, spring onions, coriander and other herbs, mange tout peas.

Your winter planted garlic and onions. Leave out in the sun to dry for a few days or in a dry airy place.

Salad leaves

Early or baby carrots

Baby beetroot

Rhubarb

Sow or plant out:

Plant out anything that is left in pots such as courgettes and pumpkins.

You could also continue to sow seeds of beetroot, carrots, salad leaves, parsley, and coriander.

Sow peas and green beans (dwarf varieties) now to give you a crop ready to harvest in September. Mange tout and sugar snap peas are easy to grow and give you a bigger harvest per square foot as you eat the pod too. However children love the wonder of shelling peas so maybe grow a few of these too.

Other things to do:

Keep weeding and watering in dry weather, especially new seedlings.

Enjoy your harvest and make plans for September!

JULY AND AUGUST SCHOOL HOLIDAY CARE

As suggested in the first section 'Setting up your organic food growing area', what you can grow in your school garden in terms of variety, and how successful some crops may be will depend on whether or not the garden can be tended a little during the school holidays. With everything in the ground already, it is really just a matter of keeping on top of weeds and watering where necessary.

Ideally a rota system where a number of people share a small amount of time commitment would keep the garden ticking over through the summer months. Depending on the size of your school garden and whether or not you have planted in open ground, raised beds or pots and containers, a quick visit once per week may suffice. Pots and containers require more watering than raised beds for instance.

There is always the option to let the garden fend for itself over the summer, and if your plot is weed free beforehand and there is some rain, then the results may be surprisingly good!

You also have the option of buying young plants, called "plug plants" in September in garden centres or by mail order, such as leeks, kale, spring cabbage, spinach, etc which would get an empty garden off to a good start.

Obviously plants such as the hardy herbs like sage, rosemary, thyme, mint, and fennel, which will slow down or die back over winter, will burst into life again in the spring and are a permanent feature. Similarly so are rhubarb, fruit bushes, fruit trees and strawberries.



THINGS THAT GROW REALLY QUICKLY!

Start small and build on your success!

If everyone is really impatient or you start you garden midseason there are still things you can grow for a quick and delicious result. Try the following quick salad crops from seed.

Salad leaves especially oriental leaves – will mature in 4 – 8 weeks depending on variety.

Radish and rocket: 5 – 6 weeks Spinach: 5 – 8 weeks Spring onions: 6 – 8 weeks Pea-shoots: 3 – 4 weeks (see September)

Micro cress: 2 – 4 weeks (see September)

Other crops which can be picked as baby vegetables and will taste just as fantastic are:

Beetroot, early carrots and turnips

Of course, don't forget early potatoes which can be grown in potato planters and picked as new potatoes in about twelve weeks.

Plug plants Don't be afraid to buy or order online trays of plug plants. Plug plants are simply seedlings which have germinated and are a few weeks old already. They can usually be purchased in spring (although not until the soil warms up a bit) or in September. Once hardened off (see April) they will be ready to plant outside, giving you a great head start. Remember to gently separate them and plant to the suggested distance apart.

THANKS AND ACKNOWLEDGEMENTS

















Without the sponsorship of the companies and organisations above, 'Sow, Grow, Munch' would not have been possible. It is intended to be available free to all schools in Northern Ireland, and be useful every year for every school and every pupil who wants to use it.

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