



The way the world used to be

- Until recently, every gardener in the world saved their own seed. They saved the seed of the plants that did best for them, and which they liked most.
- Although simple, this was efficient. Each gardener was maintaining a slightly different strain of each vegetable. This created a huge living genebank that was very resilient against disease or climate change. If things changed so that your cabbages didn't do well, someone down the road probably had a slightly different one that would cope.
- Every year, without even thinking about it, millions of people added to the achievements of their ancestors to maintain and improve the previous years' varieties.
- This has worked very well for the past 11,000 years. However, in the past 40 years, almost all these adaptable local strains have been lost.
- We need to put that right.

The appearance of choice

- You can buy packets of seeds everywhere, from garden centre to corner shop, via all of the major supermarkets. Despite this, the choice we have has actually diminished, with many varieties sold this way being very similar to each.
- In addition many seeds are sold as F1 hybrids, more of which later.
- And we are coming to rely upon a small number of increasingly powerful corporations for our seed – therefore our food – and ultimately our lives.
- Major seed storage facilities, seed libraries designed to preserve seeds of different varieties, do exist, but as the looting of the site at Abu Ghraib shows, this method is not infallible.
- The best way to preserve different varieties of vegetables is for us all to grow them!

Lessons from history – The Seed Trade

- Early growers used to save seed for themselves to plant in future years. Some seed may have been produced in monastery gardens and a little imported from overseas.
- By the middle of 16th century, growers, mainly in the south east of England, presumably, to service the rapidly expanding population of London, began to produce seed for sale.
- The Vale of Evesham developed as a growing and seed production area and by the end of 17th century seeds were being exported from Gloucester to other parts of the country.
- Seed merchants began trading in London, selling seeds by weight to market gardens and to country house estates.
- By 18th century seed merchants spread out across the provinces, for example Harrison and Son in Leicester, which traded for over 200 years.
- As the number of seed merchants grew, so did competition between them, and seed catalogues became more sophisticated and made seeds more accessible to smaller scale growers.

Lessons from history – The Victorians

- As towns and cities grew, so did the population and the demand for market gardens to supply them. In the reverse of what happens today, the best local strains were taken up by seed companies and became available to growers and gardeners.
- Most early vegetable varieties, therefore, were developed by small scale growers working to produce the best varieties for local conditions.
- By early 18th century some of the familiar names in the seed trade appeared, including Carters and Suttons, producing elaborate seed catalogues and detailed growing notes.
- The number of named varieties of seed reflected the collection of seed from local growers, though it was not uncommon for one company to take the seed from another and simply rename it!
- Seed was still an expensive commodity when bought from merchants and rogue traders often sold dud seed, so many gardeners still chose to save their own seeds.

Lessons from history – The Appliance of Science

- By early 20th century things began to change rapidly. The decline of the country house garden and increased agricultural mechanisation meant vegetables began to be grown in monoculture and on a much larger scale.
- Seed quality regulations were introduced in 1922, designed to ensure that only good seed, with acceptable rates of germination, was sold.
- At this time Gregor Mendel worked with plants to try to understand how different characteristics of parents were passed to their offspring. This was the advent of modern genetics and the start of modern day plant breeding; where plants are specially selected for certain qualities and deliberately crossed with other varieties with the intention of enhancing those chosen characteristics.
- Many varieties that are still favourites with gardeners, like the tomato Ailsa Craig were developed at this time
- Despite some commercial seed production in the south east of England, it became increasingly more economic for merchants to import seeds and local variants began to decline.

Lessons from history – Dig for Victory

- The importation of seeds continued until the outbreak of the Second World War. The closure of trade routes meant that by 1942 seeds were becoming scarce in Britain.
- Vast areas of land, and undercover areas such as greenhouses, were set aside for seed saving.
- As part of the Dig for Victory campaign people were encouraged to grow their own vegetables, of course, and to save their own seeds.
- In the post war period, and with the seed industry receiving little government support, seed saving once again went into decline.

Lessons from history – Post War Trends

- Post war a few things changed dramatically:
- Consumers started to choose more processed vegetables.
- Consumers wanted all vegetables to be available all year round, rather than accepting seasonality.
- Farming became more mechanised and relied more on chemical inputs to the land. Farmers grew much more but of a smaller range of crops.
- Supermarkets wanted large amounts of a single crop all at the same time, in order to make processing and marketing simpler.
- Supermarkets also demanded that crops were of a standard size, to facilitate packaging and pricing.
- Supermarkets required that crops could travel across the country with minimal damage.
- Supermarkets prioritised shelf-life over taste to improve profitability.

Lessons from history – Modern Methods

- As demand changed, plant breeding changed, with seed companies prioritising varieties that met the narrow requirements of farmers and supermarkets.
- Increasingly, it became unprofitable for seed companies to supply varieties favoured by small growers and gardeners.
- Plant breeding became more about the laboratory than the garden, with many crops produced exclusively from F1 hybrids . More about F1 hybrids later. Here all we need to know is that, since the seeds of the F1 crop do not give plants that grow true to type, the commercial interests of the seed company are well protected as growers need to come back for F1 seed to grow their crop year after year.
- With increasing reliance on the equipment and expertise to produce F1 seed, many small seed merchants disappeared.
- As small seed companies were taken over by larger rivals or closed, their seed catalogues were rationalised or lost altogether.
- Most seed, marketed by the large companies that remain, comes from overseas.

Lessons from history – Legislation

- In order to protect the intellectual property of seed companies, and to protect the consumer when buying seed, regulation of the industry was proposed and legislation introduced.
- Since 1973 it has been an offence to market (sell) a variety of seeds unless it is on the UK (EU) list.
- Seed companies had submitted varieties for inclusion on the list from 1964 onwards, but some old varieties never made the list.
- Some varieties were removed as being synonyms (the same seed marketed by different companies under different names) when they were not duplicates.
- Once the list was established it became difficult, and very expensive, to add varieties or to reinstate those wrongly removed.
- If a seed company wants to add a new variety to the list it cost many thousands of pounds. This means that it only makes economic sense to develop seeds which can be sold in large numbers, i.e. to industrial scale farming, rather than for those sold in small quantities to gardeners.
- Patented and protected seeds cannot be saved, replanted, or shared by farmers and gardeners. Plant breeders at universities and small seed companies cannot use patented seed to create the new crop varieties that should be the foundation of a just and sustainable agriculture.

Lessons from history – Conflict

- We have seen how the Second World War forced changes in the UK. Conflicts which threaten our food supply didn't end in 1945.
- We live in a time of crisis and conflict.
- Most city dwellers are disconnected from the source of their food and many don't know how to plant a vegetable. Should conflict come close to towns populations suffer rapid food shortages.
- In Syria and Iraq, the cradle of all cereal crops, and in Afghanistan where many vegetables have their origins, seed banks have been systematically destroyed. They represented an invaluable heritage created by generations of farmers. We cannot trust this heritage to a few gene banks.
- We should not think that this is someone else's problem, that conflict happens elsewhere. The food riots that affected the beginning of the 21st century, a result of speculation on cereal crops and concerns over climate change, were essentially an urban and western phenomenon.

Lessons from history – GM will save the world

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- According to the World Health Organisation;

Genetically modified (GM) foods are foods derived from organisms whose genetic material (DNA) has been modified in a way that does not occur naturally, e.g. through the introduction of a gene from a different organism. Most existing genetically modified crops have been developed to improve yield through the introduction of resistance to plant diseases or of increased tolerance of herbicides.
 - In practice, crops are often modified to be resistant to pesticides not resistant to the pest. This means that crops can be sprayed with chemicals from pharma giants such as Monsanto, boosting profits of the chemical manufacturer. Big pharma don't care if they poison us and destroy the eco-system in the process.
 - Genetically modified plants now cover an area equivalent to that of western Europe. In Mexico, ancient corn varieties have been contaminated by GMO corn imported from the United States. Once we plant GM crops there's no going back - the genes will escape into wild plants and other food crops.
 - And when genes do escape, GM crops cross pollinating with food crops, Monsanto sues farmers "for stealing their gene"!

Lessons from history – Back to the Future

- Fast forward to 2020 and the gulf between seed suppliers and gardeners has never been bigger!
- Most gardeners now buy seeds in prepared packets. COVID -19 both increased the demand for seed, with many more people deciding to grow at least some of their own food at home, and at the same time interrupted supply, with many seed supply companies forced to shut down just at the start of the sowing season.
- Fortunately, lockdown didn't last long enough for the government to impose 1940's style Dig for Victory legislation but what about the future?
- Covid-19 should act as a wake-up call. There will be more global events that directly or indirectly affect our food supply; climate change, global war, local conflicts and future pandemics.
- The way to protect ourselves from the adverse effects of globalisation is to build local resilience.
- Seed is the source of life and the first link in the food chain. Control over seed means a control over our lives, our food and our freedom.



Happy Seed Saving!

If you have enjoyed reading about seed saving, why not join a SEED-CIRCLE and share your interest, enthusiasm, and of course seeds, with others in your area.

Contact robin@abundantborders.org.uk

BIBLIOGRAPHY

Realseeds.co.uk

The website has lots of great information on how to grow, save and store seeds. They also sell seed to get started! We owe them special thanks for allowing us to use a lot of their information in these pages.

Back Garden Seed Saving – Sue Stickland

A fascinating book with lots of detail about saving seeds and it has easy to follow crop-by-crop guidelines.

Abundant Borders

There is lots of great information on our website at abundantborders.org.uk
We are happy to answer your questions through our Facebook Group
(<https://www.facebook.com/groups/virtualcommunitygarden/>)

Videos

A great selection of videos from DIY seeds
(<https://www.diyseeds.org/en/films/>)

