

PLANET FOOD

July 2001

LOVELY LETTUCE

EDITORIAL – July 2001



I have never been very keen on lettuces in the winter. But in summer, it's another matter. A lovely bowl of fresh crisp lettuce, with balsamic vinegar dressing and shavings of parmesan is a real treat.

A couple of years ago, I started growing lettuces in my small, organic vegetable plot. The biggest problem was slugs. Keen to avoid slug pellets, particularly the *organophosphate* varieties, I tried some homespun remedies. Neither slug pubs (an upturned grapefruit with beer in it) or crushed egg shells seemed to be very effective, so I recruited a weekend guest for an evening's slug hunt.

The slug hunt was successful. We managed to collect hundreds of tiny, slimy creatures and a few whoppers – the ones with the orange frilled bottom were prevalent that year. Having killed off the slugs in our bucket, by pouring some salt on them, I was heading off to bed. I heard a sort of plop. One of the big ones had been making its way up the sleeve of my dress all evening – the slime trail had reached my shoulder – before it fell off!

Last year I was seriously wondering about setting up a 'Mr McGregor fan club', as the rabbits ate most of my lettuces (as well as my carrots and beans). But this year, so far, I've been more successful and I'm waiting to crop the healthy red tinged leaves that are sitting alongside my nasturtium edging. The nasturtium flowers make a beautiful addition to salads and taste good too.

One of the things that has happened to lettuces in the last 10 years or so, is that there are far more varieties on offer. This month, I am going to look at the lettuce and salad choices we have, as well as how they are grown and of course what chemicals are used.

LETTUCE VARIETIES

Lettuce originated in the Mediterranean around Egypt. The Egyptians used the leaves for fodder and the seeds for oil. As lettuce went West, the Greeks and the Romans developed the leaves for food, but in the East they were more interested in the stem for cooking. The result was stem lettuce, which is used in Chinese stir fries.

Iceberg is the youngest type of lettuce. It was developed in the US in the 1940s or 50s. The Americans like the crispy texture and they also appreciate the fact that closed lettuce head makes *Icebergs* last longer and therefore good for shipping from California, which produces more lettuce than anywhere else in the world. To the rest of the US.

The first *Icebergs* were bred for growing in California and were not so well adapted for the less sunny climes of Northern Europe. Now varieties are being specially developed to suit European conditions, including resistance to diseases. Although *Iceberg* is still the most popular lettuce, the amount grown is going down all the time as people want more varieties – salad packs, for example tend to be made up from a number of different lettuce types.

Other common lettuce varieties include:

- *Butterhead*, also known as cabbage lettuce and which used to be the most common type grown in the UK before *Iceberg* took over.
- *Batavian lettuce*, which is a softer crisper lettuce than *Iceberg*, usually lighter green and may have tinge of red on the leaves

- *Leaf lettuce*, including *Lollo Rosso* and the Oak leaf types such as *Salad Bowl*, which don't form a heart, so it is possible to pick leaves off the plant throughout the growing season.
- *Cos*, which was developed by the Greeks and grown ever since, including in Victorian kitchen gardens.
- *Romaine*, which are similar to *Cos*

One of the main areas of research for future lettuce varieties is breeding resistance to pests and diseases. Many plant breeders are going back to older types and looking for natural resistance.

It seems that the future of lettuce production may not be fully organic, but will almost certainly be using less chemicals. This is in part due to consumer demand, but also because the chemical companies take far longer getting their development money back on horticultural chemicals than they do on chemicals for agricultural crops such as wheat. It is estimated that it would take 23 years to recoup the initial outlay on developing a new chemical for cucurbits (melons, cucumbers and courgettes) as opposed to one year for a cereal crop, grown on a large scale.

SPRAYING LETTUCES

Nobody is going to die if they eat an aphid – you won't even get ill. However, the supermarkets have zero tolerance for aphids, apparently reflecting the concerns of their customers. This is why conventionally grown lettuce may have been sprayed so many times.

There are more aphids in the height of summer, so more spraying is needed at this time. Ironically growers have to get rid of the predators too because some of them are messy eaters and leave remnants of the aphid behind and, of course, consumers don't want to come across any insect, however beneficial they may be. *Icebergs* have to be sprayed more often than open lettuces because the aphids need to be killed off before they are able to crawl inside the head.

Downy mildew is another problem for lettuce growers. The fungal disease likes the damp, so it is prevalent in wet weather, as well as in the Autumn, when there are heavy dews.

There are legal time limits set between spraying and when the crop is harvested. Most lettuces grown outside will not have a problem with residues, but tests have shown higher levels of residues in some glass-house lettuces, which are more likely to be on sale in the winter months.

SAY NO TO ICEBERGS

Interview with Guy Watson from Riverford Farm, South Devon. Tel: 01803 762 720
www.riverford.co.uk

"Lettuce was one of the first things that we specialised in because I am a fanatical salad eater"

Guy Watson of Riverford Farm has been growing organic lettuces for about 17 years and is now probably the biggest supplier to the multiples. He says that the key to his success is a good understanding of pests and their predators.

The biggest problem is aphids. And Guy has one or two people spending several hours a week counting the aphids and their predators on the lettuces. The most active predators are the larvae of hoverfly and lacewing, although ladybird each plant will tackle innumerable wasps, although it is more difficult to see lay an egg inside the aphid and it eats it



larvae are good too. Even one larvae on aphids. There are also a few predatory the results of their efforts because they from the inside!

If there are not enough predators then Riverford Farm resort to spraying a detergent based product made from vegetable oil. Unfortunately this takes out some of the predators too. Guy says that

before harvest there can be quite a lot of aphids and if possible he holds his nerve and resists spraying because once done it disturbs the balance and makes it more necessary to spray again. About one quarter of his crop is sprayed like this, but usually only once, compared to about thirteen times on conventional lettuce.

Riverford Farm has very few problems with slugs in lettuces – there are almost none. Guy says that slugs don't tend to be such a problem in fields that have been organic for some time. This is probably because of the vitality of the soil, with predators such as nematodes, as well as the Carabid beetle, which Guy points out will eat more slugs than toads or hedgehogs.

Mildew is quite a big issue. With this disease the varieties of lettuce grown is important, as well as the topography. Moving to higher ground towards the end of the season can help – lettuce, in the lower fields, can be wiped out by the white mould if it's too wet. One of the problems with trying to treat for mildew is that the disease constantly mutates, so it is difficult to keep pace.

Guy says that the most popular supermarket lettuces are *Icebergs* but having tried for years and years, he is not able to grow them profitably. *Icebergs* have apparently been bred so that they will only grow and survive in perfect conditions. So, for example, if it rains and the nitrogen is leached out of the soil, it needs to be replaced, which is not permitted under an organic system.

The real 'bomb-proof' lettuce is *Red Batavia*. It never gets mildew and can even tolerate a lack of water, for a while. Riverford Farm also grows *Litte Gems*, which can be delicious, although rather small, *Red* and *Green Batavia*, *Oakleaf* varieties, which look lovely in salad and the traditional Mr McGregor style lettuce – *Cos*.

Guy recommends other salad leaves as well – *radicchio*, for example or *land cress*, which is rather like *rocket*. He also grows some Japanese ones, although he doesn't like them much. One mild salad leaf is *lamb's lettuce*, which Guy says has an earthy taste and is also fairly winter hardy.

The increased interest in organic has meant a greater demand for organic lettuce. But this has also meant that Riverford Farm has more competitors, fighting for supermarket custom. Guy thinks they are finding it more difficult than they might have anticipated. He wonders if the abundance of crows around his farm is the reason why he does not have a problem with cut worms – the larvae of the turnip moth – which are attacking the organic lettuce crops in the East of England.

Selling to supermarkets is not always easy. They can be quite demanding, sometimes, for example, insisting on a price reduction so late in the day that it would be impossible to sell to anyone else. Guy says that he would prefer to sell all his produce through the home delivery scheme run by Riverford Farm. One third of their produce is used in the organic boxes that are delivered to five thousand customers throughout the South of England ([see contact details](#)).

SMALL SCALE RETAIL

Steve Friend, The Trading Post, South Petherton, Somerset

"I am a small scale grower, which means that I can give everything 100% attention"

Steve Friend is a reticent sort of chap. When I asked him about growing lettuces he said "Yeah, I grow lettuces, what do you want to know?" But the Trading Post, set up by Steve and his partner Sue Hasell, is very much an enterprise of our times. Now that it's there many of their customers wonder how they managed without it.

Steve and Sue took over a derelict garage site on the old A303 as you head west to Ilminster, in Somerset. The garage premises were converted into a shop and out the back there is enough land for growing produce. The shop sells fruit, vegetables, dairy, bread and many staples, as well as plants and



flowers. What they sell is organic, local or both and includes almost every type of vegetable, many grown by themselves.

Steve is in charge of the garden. He says that it is not certified, as organic, by the Soil Association, although they do follow their guidelines. Time and money are essentially the reasons they have not gone for the Soil Association symbol. When they bought the premises they applied to convert to organic. However, by the time they had completed the paperwork, there were so many people on the same track that MAFF grants had dried up for that year.

Steve was too late applying again in the second year and now in his third year, he says he's too busy. He also points out that he thinks the Trading Post customers are happy with them as they are.

The only things Steve has added to the land have been manure, compost, mulch and volcanic rock for its potassium. He says that he does not have a problem with aphids on lettuces. No mildew either. And most of the slugs are eaten by the chickens and ducks that he has roaming the plot, before planting. Although sometimes, he says he has is out late at night and early in the morning – at around 5.00am – picking them off.

The chickens and ducks are more for pest control and manure than for eggs and meat. In fact the Trading Post is waiting until he gets female ducks so they can sell the eggs. The birds mostly eat grass, but bought feed is usually Soil Association approved.

Steve says that being small scale and living on the land are big advantages. This means that he can give lots of attention to his produce and there are less losses. He has an eight-year rotation, which prevents many diseases. And his worst pests are pigeons, which, as well as netting the vulnerable crops, he tries to frighten off with colourful windmills and tinfoil. He also says that the children cycling around and making lots of noise is very effective! Rabbits were a problem but they, and the foxes, have been deterred by new fencing.

Steve grows about 250 lettuces a fortnight, which is not quite enough for the shop, so he does buy in from other people, include Riverford Farm, Tinkers Bubble – a local community – and a company called Strawberry Fields, whose name appealed to Steve, although he is not sure if they sell strawberries.

As the enterprise develops it is becoming more self-sufficient. Every year Steve collects one extra seed and grows them from scratch. He is starting with the easy ones – broad beans in the first year, then peas and now spinach. Lettuce might be next on the list.

LETTUCE CONTACTS

Henry Doubleday Research Association (HDRA) has lots of different lettuce and salad crops grown under different organic conditions. They have an excellent leaflet entitled *On the trail of the slug*

Contact details: HDRA, Ryton Organic Gardens, Coventry CV8 3LG / Tel: 024 7630 3517 / www.hdra.org.uk

Horticultural Research International (HRI)

Contact details: HRI East Malling, Kent ME19 6BJ / Tel: 01732 843 833 / www.hri.ac.uk

Riverford Farm are the biggest organic supplier of lettuces to the supermarkets and they also run a large-scale organic box scheme throughout the South of England.

Contact details: Tel: 01803 762 720 / www.riverford.co.uk

Soil Association set organic standards for lettuce growers and provide technical support and representation for organic farmers and growers.

Contact details: Soil Association, Bristol House, 40-56 Victoria Street, Bristol BS1 6BY / Tel: 0117 914 2402 / www.soilassociation.org

Sustain – the alliance for better food and farming Contact details: Sustain, 94 White Lion Street, London N1 9PF / Tel: 0207 837 1228 / <web address from strawberry column>

