

Survey of comfrey use

Aims of this survey

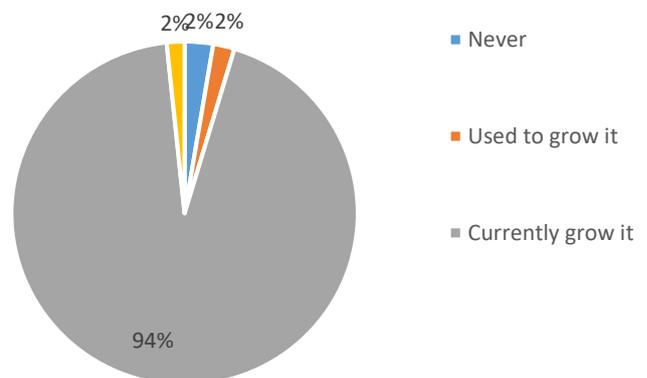
The aim of this survey was to evaluate the extent to which comfrey is grown by gardeners and what it is used for. We would also wanted to ascertain whether people are aware of what species or cultivars they are growing. Anybody given or inherited a comfrey plant, may not be sure what type they are growing.

People are only likely to know for definite if they have been sold a named species and cultivar. Without this information it can be very difficult to distinguish between species and cultivars by eye. For this reason, we did not include a key for identification because the characteristics are not clear cut.

Who grows it?

Of the 304 people who took part, 94% currently grow comfrey. The remainder was equally divided between those that used to grow it, never grew it, or would consider growing it in the future. This is almost certainly a self-selecting group as people who grow comfrey are more likely to take part in the survey, despite our efforts to encourage those that don't grow to take part and tells us their reasons for not growing it

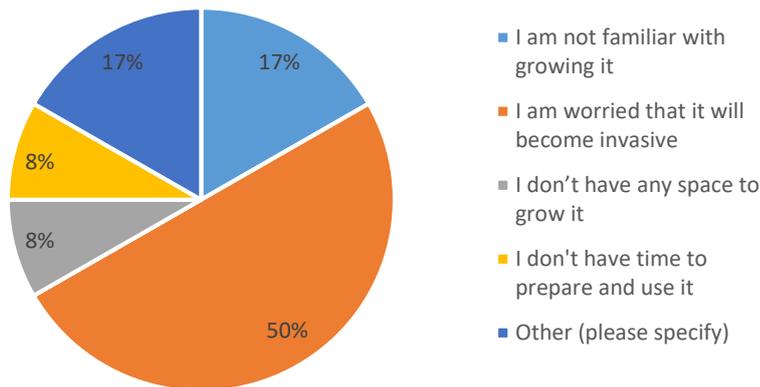
People who grow comfrey



Comfrey was grown in a range of locations from Helston in the South West to Inverness in the North, showing that it was possible to grow it in most locations in the UK.

Only a small number of people reported not growing comfrey. By far the most common reason for not growing it (50% of respondents) was a worry that it may become invasive. It is likely that these people had only experienced common comfrey (*Symphytum officinale*) which does spread, and weren't aware of Bocking 14 variety of Russian comfrey (*Symphytum x Uplandicum*) which is sterile and doesn't set seed around the garden.

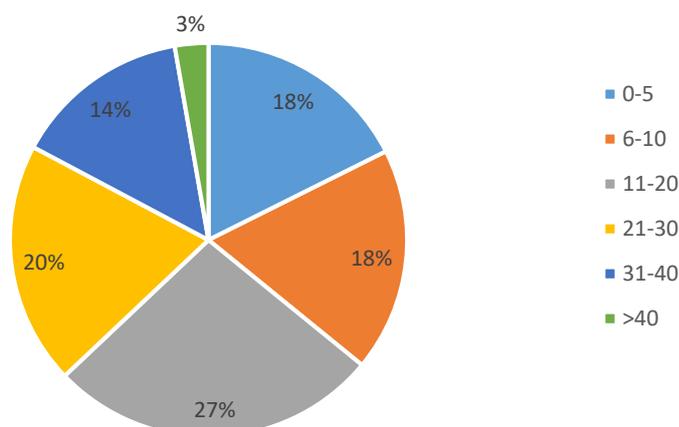
Reasons for not growing comfrey



How long have people been growing comfrey?

Many people had been growing comfrey for a long period of time. 64% had grown it for more than 10 years, and 37% for more than 30 years. This strongly suggests that once people try it, they find it useful and continue to grow it.

Years grown comfrey



“It has been very valuable over the years and we would not be without it.”

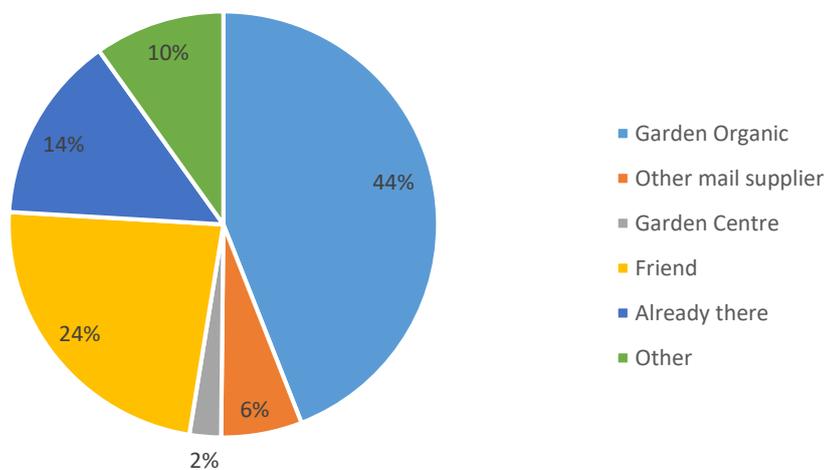
“We should all grow it, however little. We first bought Bocking 14 comfrey from HDRA in the 1960's and grew it in our garden in West Sussex”

“Reliable and prolific, needs no attention other than to cut it down when it gets too big. No pests but it gets a little rust now and again.”

Sources of comfrey

Almost half (44%) of respondents obtained their comfrey from Garden Organic (or the Organic Gardening Catalogue). Also, 23% obtained from friends. It is quite possible that the friends originally obtained their comfrey from Garden Organic. This demonstrates the impact that Garden Organic has had on growing comfrey.

Where was comfrey obtained from?



Why do people grow comfrey?

Using comfrey for the purposes as feed or improving soil fertility was by far the most popular reason for growing it (97% of respondents). This is to be expected as, latterly, the main thrust of the work by Lawrence Hills and Garden Organic was to develop and promote the use of comfrey as a plant feed and a means of improving soil fertility

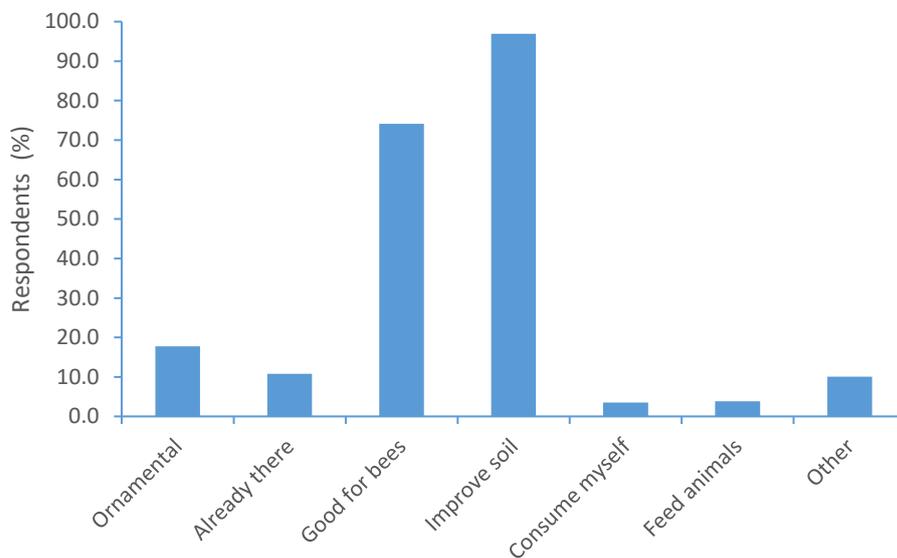
“I love the way you can create new plants from the rhizomes, I love the way it grows so well, and that the bees love it. It makes me feel good growing it. I have moved the areas where it has grown in our garden as we have changed the design but would never be without it now. I like its versatility too, in that I can create a liquid or just put the leaves into the soil directly. “

Additionally, 74% stated that they grow it because it is good for attracting bees. Comfrey is rated as a highly effective plant for attracting bees as it has a long flowering period and is suitable for long and short-tongued species.

“Good early spring flower for my bees”

“The area buzzes in late spring”

18% also grow it as an ornamental – there are many different varieties available with different flower colours and variegated forms.



Very few people grew comfrey to eat themselves or to feed to animals. This represents a change in attitude. Much of the original focus on comfrey was on its properties as a fodder crop: it is high yielding and has a high protein content. However, this use rapidly dwindled due to concerns over the potential carcinogenic properties of alkaloids in the plant.

Interestingly, it is one of the only plants that contains vitamin B12, although we would have to consume unpractically large amounts to obtain enough of this vitamin. It is not recommended that humans consume it internally for the reasons given above.

A few people also commented that they use it as an ointment for healing cuts and scratches. Comfrey leaves contain the compound allantoin which has been shown to accelerate the regeneration of tissue. However the amounts of this compound in comfrey leaves are highly variable, making it difficult to use comfrey as a reliable treatment.

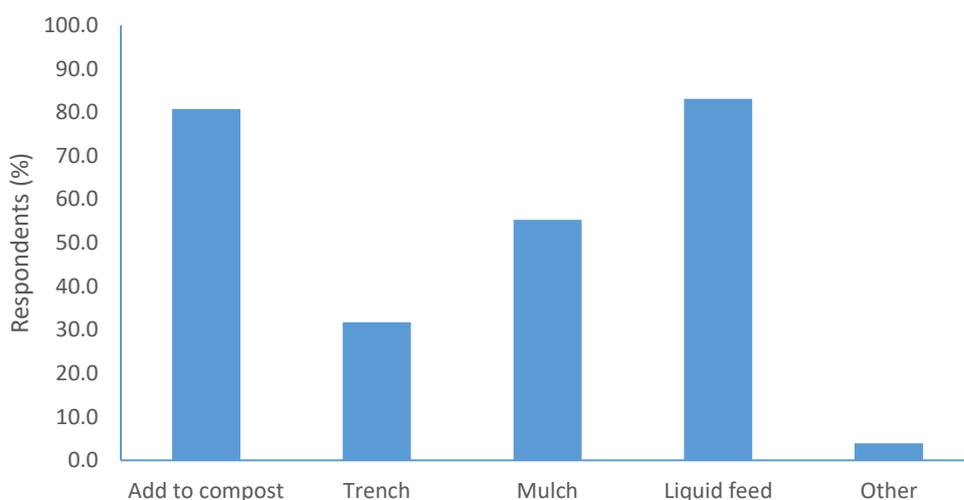
How is it used as a plant feed?

Comfrey was most commonly used as a liquid feed (83% of respondents) and also added to compost (81% of respondents). Both have shown to be highly effective. The liquid feed is high in nitrogen and potassium at comparable levels to propriety tomato feeds. The potassium is important for developing the flavour in tomatoes. As a compost activator, the low carbon : nitrogen ratio allows the leaves to break down quickly releasing nitrogen as an activator for breakdown of the compost heap. Almost 55% of people also used it as a mulch, where again it will break down quickly, releasing its nutrients.

“Plants really respond to the feed”

“Works well as liquid for greenhouse grown tomatoes.”

How comfrey is used to improve soil fertility

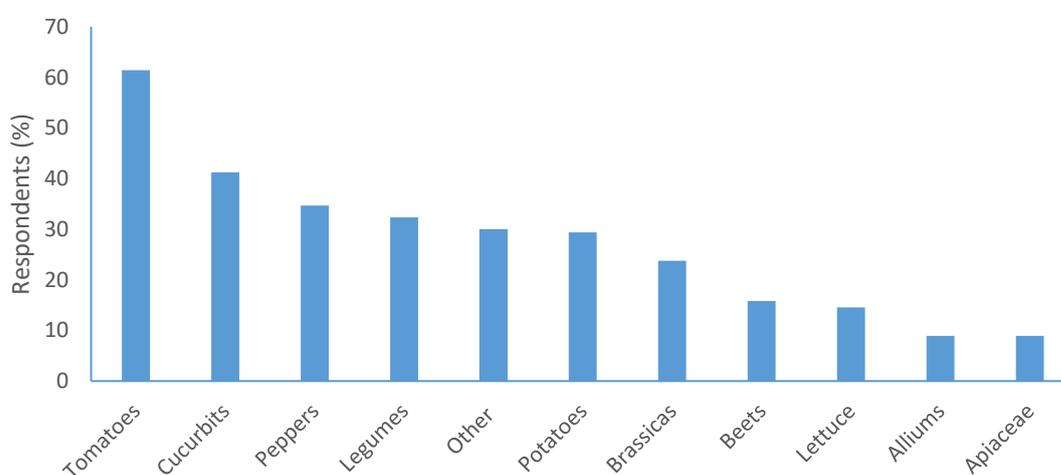


Of those that made comfrey liquid, 38% made it in a barrel and 38% made it in a bucket. Mixing it in a bucket is the simplest method of mixing small quantities of liquid, although this is the least effective way of containing its potent smell. Only 7% used the method of compressing leaves inside a drainpipe. Although this requires a bit more time to set up, it is a very good space-saving way of making it, and makes a concentrated dark liquid. Only 9% suspended the leaves in a bag, most perhaps considering it an unnecessary step. Only 22% used a method with no water added. This requires a bit more setting up, as the leaves need to be compressed with a weight, but makes a much more concentrated but far less smelly liquid than when extra water is added.

“I use a wheelie bin with a tap at the bottom and weight the comfrey down with bricks / slabs”

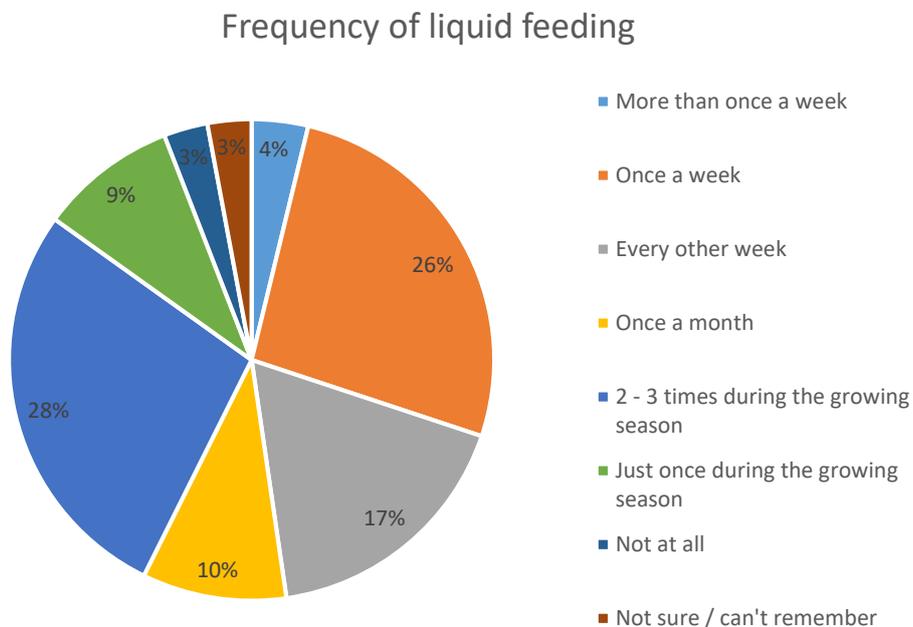
Comfrey was applied to a wide range of crops. Tomatoes (61%) were by far the most popular crop to be fed with comfrey liquid. Cucurbits (41%) and peppers (35%) were also popular. All of these crop will benefit from the high potash content necessary for good fruit

Crops fed with comfrey



development. They are also nutrient hungry crops, commonly grown in containers or glasshouses, where liquid feeding is necessary.

There was a large range of how often people applied comfrey liquid to their plants.

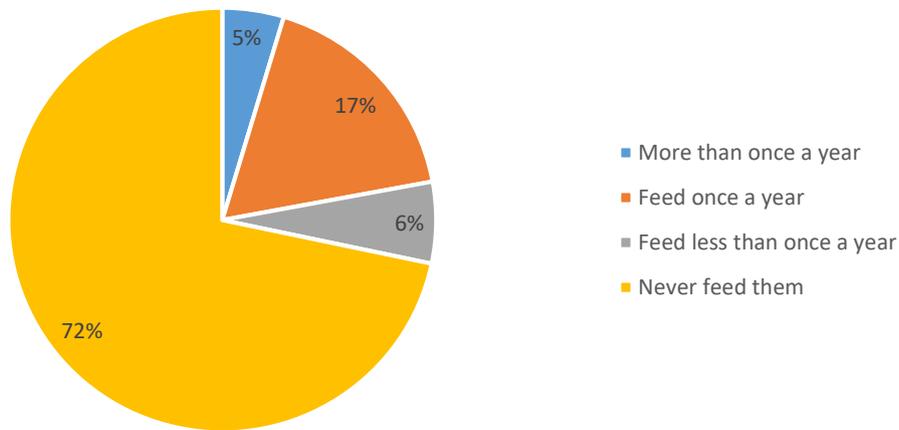


28% fed them every week, 27% every 2 – 4 weeks and 28% only fed them 2 or 3 times during the growing season.

What was more surprising, was that the majority (72%) of people never feed their comfrey plants. Only, a small minority (17%) feed it once a year. Although comfrey is very effective at taking up nutrients from the soil, it does not actually fix nitrogen, as legumes do. Therefore if it is never fed, the nutrient contents of the soil it is growing in and the nutrient content of the comfrey leaves will gradually decline.

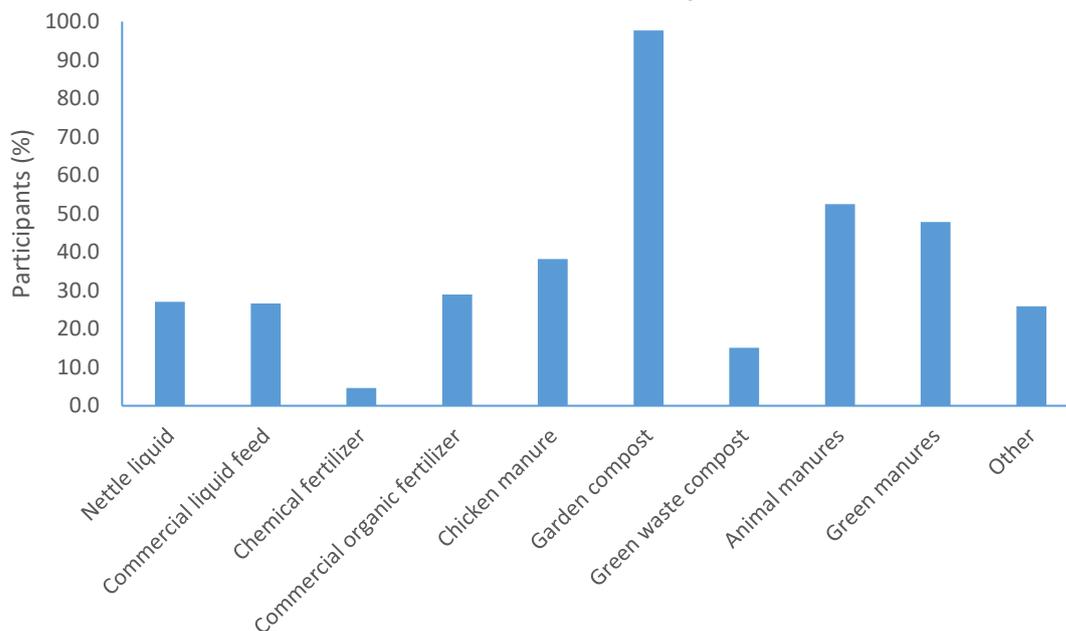
“Have started feeding it! Never occurred to me until I got 'Comfrey for Gardeners' in the survey information pack this year!”

Frequency of feeding comfrey plants



We also examined other sources of soil fertility that people used in their garden. Garden compost (98%) was the most popular, which is not surprising, as anybody with a garden

Sources of soil fertility



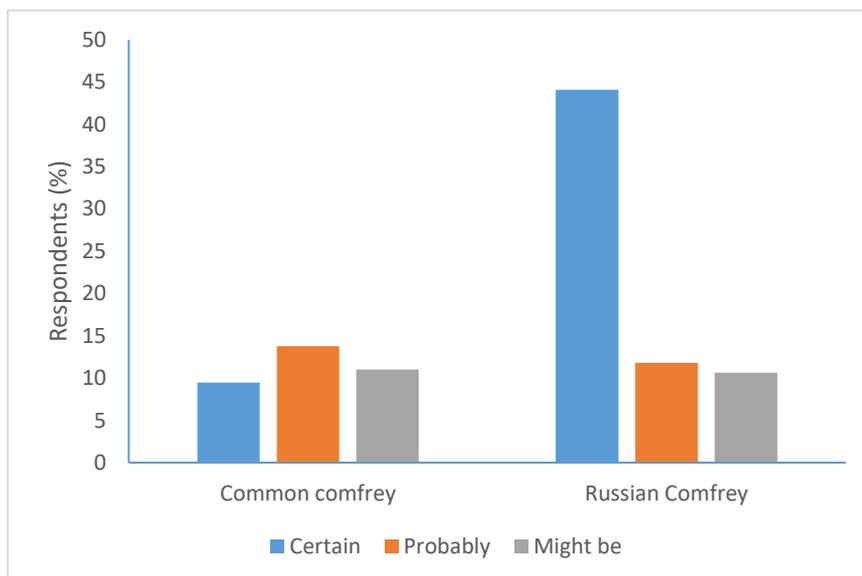
space that is growing produce, is likely to take advantage of turning their green waste material into a useful soil improver. Animal manures (53%) were also popular, these can be highly variable in nutrient content and not always readily available to everybody. It was encouraging that growing green manures (48%) were also popular. Growing green manures requires an investment in time and effort, so it was good to see that, after all the work that Garden Organic has done, people recognise the contribution they can make to soil health.

Do people know what they are growing?

After all the work that has been done in selecting the best varieties of comfrey, we were interested to know whether gardeners were aware of what type of comfrey they were growing. Encouragingly, 72% of respondents knew what species they were growing. There was most certainty around Russian comfrey (*Symphytum x Uplandicum*). 55% of people respondents were certain or thought they were certain or probably growing it. Less people thought they were growing common comfrey (*Symphytum officinale*) with 22% certain or thought they were certain or probably growing it.

This is to be expected as Russian comfrey is far more likely to be bought from a known source and introduced. Common comfrey is more likely to be found already growing in the garden, so there will be less certainty over identifying it.

“Bocking 14 does not seem to spread uncontrollably and is really easy to grow in the garden, productive and beneficial”



Encouragingly, 61% said they that they knew which cultivar they were growing, with 62% certain or thought they might be growing Bocking 14. Again, this is not surprising, as this is the most commonly named variety sold to gardeners, although there are named ornamental varieties too.

Only 28% of respondents had tried to identify varieties of comfrey by eye. Identification is difficult as precise keys that satisfactorily distinguish between varieties seem scarce. Also many of the differences in physical characteristics such as flower colour and leaf shape, between varieties, are not clear cut.

Conclusion

This survey concludes that the work of Garden Organic has had a big impact on the use of comfrey amongst its members. Its use is now widespread around the country, and many have been using it for a long time. Its most popular uses are as a plant feed and to attract bees. It is surprising that so few people feed their comfrey plants, as the plants can't draw upon an unlimited supply of nutrients from the soil if nothing is put back.

It is encouraging to see how many people know that they are growing Bocking 14, after the work done by Lawrence Hills to select and develop this variety.

Appendix – Background and history of comfrey

Comfrey is a perennial plant in the Boraginaceae family. It is native to Europe and often found growing in damp locations such as river banks and ditches.

Comfrey can be thought of as one of the green pillars upon which Garden Organic was formed in 1958. Long before this, there have been many mentions of this versatile plant. One of the earliest references was made in Turners Herball (1568) as a cure “for them that spitte bloode” and “to glew together freshe woundes”. The comfrey plant has since been used for many uses such as fodder crop, a plant feed and various medical uses.



Henry Doubleday

The origins of Garden Organic can be traced back to the 1870s, when the botanist Henry Doubleday was searching for a UK plant that could be used as a source of glue for stamps. When he heard of a plant with highly mucilaginous leaves growing in a palace in St Petersburg, he wrote off to the head gardener asking for some plants. They sent him a chance cross of common comfrey (*Symphytum officinale*) and rough comfrey (*Symphytum asperimum*). The hybrid that he received was what is now known as Russian comfrey (*Symphytum x uplandicum*), and is particularly vigorous. It also has the benefit of not producing viable seeds, so does not spread. Unfortunately, Henry Doubleday’s comfrey glue did not stick, but he continued to work on the plant and won a Fellowship to the Royal Society for his work. He died relatively poor, and all records of his work were burnt.

Lawrence Hills

It was in 1948, when Lawrence Hills first started working on comfrey. He was determined his work would not be destroyed, so he later named his organisation after Henry Doubleday in honour of his contribution to work on the comfrey plant.

Lawrence was interested in developing the plant for a number of uses including its potential as a high yielding, high-protein fodder crop for animals and its properties as a plant feed. In 1958, the Henry Doubleday Research station trial site was set up, on $\frac{3}{4}$ of an acre of ground, in Bocking, Essex rented for a fee of £10 per year. He collected strains of comfrey from farmers and growers, characterised and tested them for their value as a plant feed and a livestock feed. The strains that he identified, he gave the name ‘Bocking’ and a number. From this work, two cultivars remain popular today. Bocking 14 was the best as a plant feed, and Bocking 4 was more suitable for feeding livestock.

It is his work using it as a plant feed that has had the most long lasting impact on gardeners. His work showed that it had similar nutrient contents to proprietary feeds so provided a viable cost-effective feed with a low ecological impact.

Types of comfrey

There are many different types of comfrey including both different species, and cultivars.

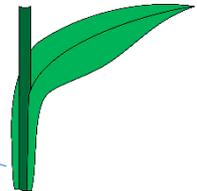
Here are some of the most common types:



Common comfrey (*Symphytum officinale*)

Common comfrey is the wild type of comfrey. Its leaves are more slender than the Russian type. It has clusters of tubular flowers which come in a range of colours including cream, blue, pink and lilac. Common comfrey produces seeds so will easily spread around a garden, becoming quite invasive. The leaves are widely decurrant*.

*Decurrant refers to the amount that the leaf bends and attaches to the main stem as shown in the picture.



Rough or prickly comfrey (*Symphytum asperum*)

Prickly comfrey has rougher leaves and the flowers are a deeper blue than the common comfrey. Although it can set seed, it doesn't spread as vigorously as common comfrey. The leaves are only narrowly decurrant, and sometimes not at all.

Russian comfrey (*Symphytum x Uplandicum*) (The x indicates that it is a cross of 2 species)

Russian comfrey is the most popular species of comfrey to grow in gardens. It has slightly broader leaves than rough or prickly comfrey. The flowers come in a range of colours including red, blue or purple. Russian comfrey is a hybrid of common and prickly comfrey, and does not produce viable seed. This limits its spread, making it more manageable to grow in gardens. There are many cultivars of Russian comfrey, the most well-known being Bocking 14 which has been selected for its productivity and nutrient content.



Ornamental cultivars of comfrey

There are many ornamental cultivars of comfrey that are sold through various nurseries. Some such as *Symphytum x Uplandicum* 'Variegatum' have variegated leaves. Some cultivars are sold without species names eg *Symphytum* 'Lambrook Gold'.