



ILLUSTRATED GUIDE

TO

HORTICULTURAL WEEDS



Bittersweet
Woody Nightshade
Solanum dulcamara

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Introduction

This Guide has been written to help students identify the weeds listed in *Common Horticultural Weeds*, with the arable weeds featuring in *Guide to Identifying Tillage Weeds* and the rest are covered in this document.

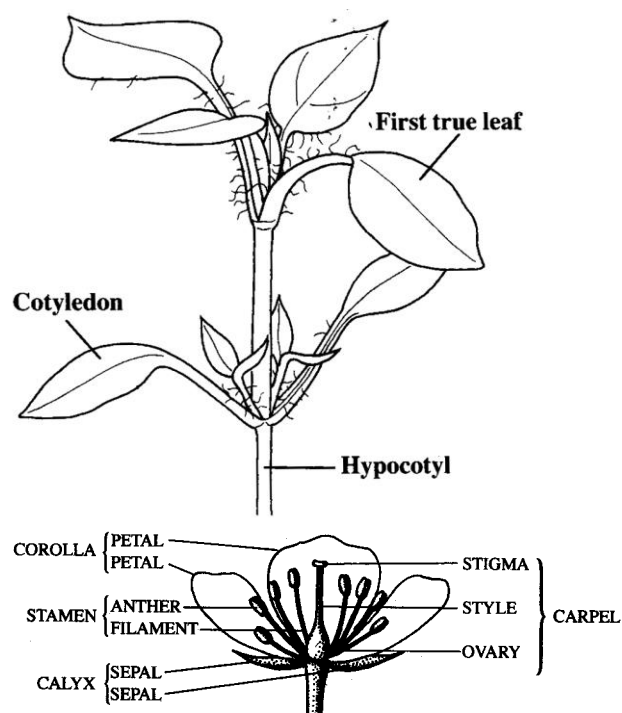
Weeds are plants growing where we don't want them. They are usually just wild flowers in amongst cultivated plants but can also be cultivated plants that come back to haunt us at a later stage. For example potatoes will often reappear as a weed in the crop following potatoes - these are known as volunteers. Sometimes a plant imported as a cultivated plant subsequently escapes into the wild - Helxine and Giant Hogweed spring to mind. But whatever the source we'll need to be able to put a name on them to allow us to look up or ask how to get rid of them.

The easiest way to identify weeds is when they are in flower. If you of an acetic disposition you can wade your way through the keys in Webb's Flora but much better is to get yourself a good wild flower book with lots of coloured pictures, and run down an unknown plant by flicking through the pages. However weeds in flower are not always to hand and you're faced with identifying the species using just the leaves or worse still a tiny seedling. But it can be done as there are loads of clues other than the flower when it comes to putting a name on an unwelcome weed.

In the notes I have underlined the key identification features for each weed and also where appropriate highlighted the image with an arrow. They are grouped together in their botanical families, which are listed alphabetically.

The botanical jargon has been kept to an absolute minimum but you need to know a few terms. When a seed germinates the first leaves are called cotyledons or seed leaves. The bit of the stem underneath the cotyledons is called the hypocotyl. The second set of leaves formed are the first true leaves, which can be similar to the adult leaves but on occasion can look different.

Flowers are made up of a number of different parts - the most obvious are the coloured petals, which in turn are protected by sepals before the flower bud opens. The male parts of the flower are the stamens which are made up of the anthers (contains the pollen) and filaments. The female part of the flower is the carpel which is made up of the stigma, style and ovary (contains the seeds). However there are many variations on the simple representation of a flower as seen on your right.



All weeds have a Latin name and usually a common name. The Latin name of a daisy is *Bellis perennis* which is made up of two parts. *Bellis* is the generic name or genus; and *perennis* is the specific epithet and the two together is the species name.

Weeds are either annuals (A), biennials (B) or perennials (P). Weeds of tillage or cultivated ground are usually annuals, in lawns they are normally perennials and in borders and waste ground can often be a combination of both.

Weeds have a number of features in common that have allowed them to succeed. They usually have the following characteristics:

- An ability to grow, flower and set seed quickly e.g. groundsel, chickweed, shepherd's purse
- An ability to grow from root fragments which are often brittle e.g. bindweed, scutch, perennial sowthistle
- An ability to germinate readily when conditions are right coupled with the seeds ability to survive many years in the soil if necessary e.g. oil seed rape, dock, redshank
- Ability of the plant to adapt to different growing conditions. A plant of hairy bitter cress may grow an inch tall and produce only a few seeds in poor hard ground but will grow a foot tall and produce lots of seed in a rich environment. Another example is the ability of annual meadow grass in a lawn to change its growth habit to enable it to produce seed under conditions of close mowing.
- An ability to disperse seeds widely. Wind bore seed is able to travel widely and the best gardener or grower can be at the mercy of a bad neighbour. Examples would include willowherb, groundsel, dandelion and spear thistle.
- An ability to be genetically diverse with certain weeds showing an ability to allow both self and cross pollination. This means that they are well adapted to colonise a wide variety of habitats created by human activity.

The problem weeds in nurseries are hairy bitter cress, groundsel and willowherb. The top 10 weeds found in vegetable fields are groundsel, shepherd's purse, mayweed, fat hen, chickweed, knotgrass, redshank, annual meadow grass, fumitory and black bindweed. Sorrel, sheep's sorrel, corn marigold and corn spurrey are all indicators of acid soil.

If you are new to weeds - get to know these very common ones first:

Annual meadow grass, scutch, daisy, dandelion, groundsel, mayweed, smooth sowthistle, hairy bitter cress, shepherd's purse, chickweed, fat hen, bindweed, petty spurge, fumitory, red deadnettle, white clover, willowherb, knotgrass, red shank, dock, buttercup, cleavers, speedwell and nettles.

If you are keen to expand your knowledge of wild flowers I'd recommend checking out the Biodiversity Ireland website. Here they encourage everyone to explore their local area and record what they find in the way of wildlife on the website. They also run classes on wild flower identification. It's a great way of learning about your local flora and fauna and keeps you interested.

All plant names are of Latin or Greek origin. It can be useful to understand what the specific name means as it often refers to the morphology, habitat or medicinal use of the plant.

acris	sharp, pungent	agrestis	growing in fields
album	white	arvense, arvensis	of arable land
asper	rough	annua	annual
anserina	eaten by geese	bulbosus	bulb
communis	common	corniculata	horned
ciliatum	with eye-lash like hairs on the margin	crispus	curled
convolvulus	entwine	dioica	male and female flowers on separate plants
dubium	doubtful i.e. likely to be confused with other species	didymus	twin
fontanum	growing beside springs	filiformis	thread like
ficaria	fig like	heli-	sun or sun loving
hirsuta	hairy	hederifolia	ivy leaved
indorum	without a smell	lanceolata	spear shaped
lupulina	hop like	major	larger, greater
maculosa	spotted	media	intermediate between two other species
montanum	growing in mountains	muralis	growing on walls
nigrum	black	oleraceus	eaten as a vegetable
officinale	used as a herbal remedy	obtusifolius	with blunt leaves
pratense	growing in meadows	palustris	of the marshes
perennis	perennial	parviflorum	small flowered
purpureum	purple	persica	peach
podagraria	cure for gout	procumbens	creeping
patula	open or spreading	repens/ reptans	creeping
radicata	with a strong taproot	sepium	growing in hedges
segetum	growing in cornfields	vulgare	common

APIACEAE (formerly UMBELLIFERAE)

Crops: carrot, parsnip, celery, parsley, coriander

Ground Elder – *Aegopodium podagraria* (P)



Ground elder is a vigorous and invasive perennial species, that once it gets into a garden can be difficult to remove. It's difficult because of the extensive underground rhizomes (stems) that can spread the weed into large colonies intertwining itself amongst cultivated plants. Where it invades a planted area it may be possible to dig out the desirable plants and clean off their roots to remove rhizome fragments. The bed should then be dug over to remove all rhizomes before replanting.

It flowers from May to July and while it can set seed, vegetative spread is more important. The rhizomes can grow 15 to 90 cm per year. Rhizome fragments containing a node can readily develop into new plants. Fragments without a node form a callus that may produce adventitious buds after several months and these then grow to form new shoots. All the stems except the flowering shoot remain below ground and it is the leaf stalk not the stem that emerges above ground.



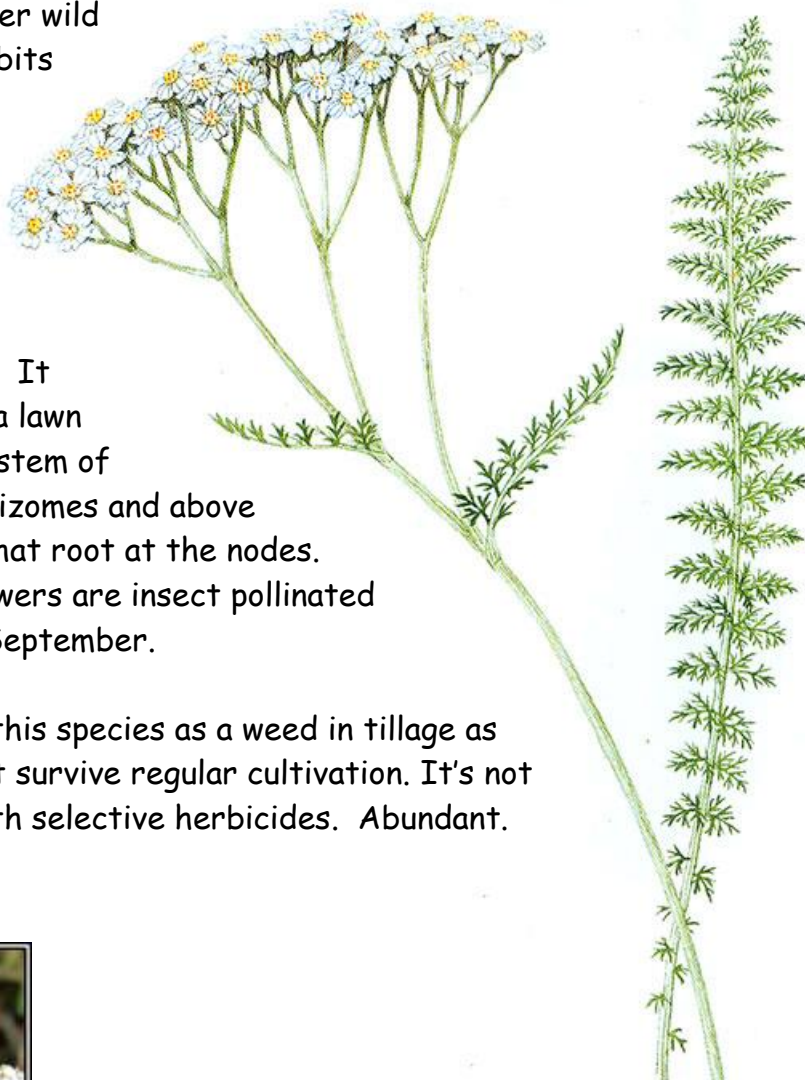
ASTERACEAE (formerly COMPOSITAE)

Crops: lettuce, salsify, chicory, endive, globe artichoke, Jerusalem artichoke

Yarrow – *Achillea millefolium* (P)

Like selfheal this is another wild flower that naturally inhabits pastures and grassy areas that can end up as a weed in our lawns. It's a perennial plant that can grow up to 40 cm but can adapt to being regularly topped in a lawn situation. It can be very persistent in a lawn with its extensive root system of underground branching rhizomes and above ground prostrate stems that root at the nodes. The white flat topped flowers are insect pollinated and appear from July to September.

One rarely comes across this species as a weed in tillage as in general yarrow does not survive regular cultivation. It's not easy to control yarrow with selective herbicides. Abundant.



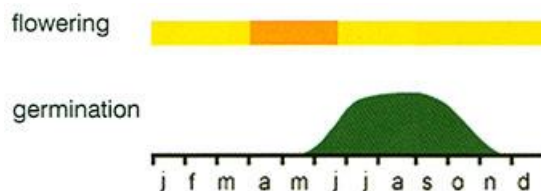
Yarrow growing in Kinsealy lawn

Daisy – *Bellis perennis* (P)

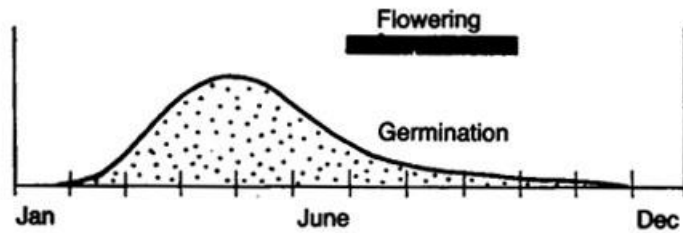


Hands up who doesn't recognise daisies? Nobody hopefully. This very familiar weed is known by just about everyone and is the bane of every gardener who wishes to have a pristine weed-free lawn. And if you don't mind the odd weed it's one of the prettiest there is.

It's an evergreen perennial plant with short, shallow, creeping rhizomes (underground stems) on which rosettes of leaves are formed. The rhizome keeps diverging into two and hence the formation of a daisy patch, that increases in size year on year. The familiar flowers can appear at any time of the year but mainly from March to October with a flush in April and May. The flower heads close up at night and during wet weather. The common name is thought to be a contraction of 'Day's eye'. Daisies are mainly self-pollinated and set seed that is wind dispersed around the plant which readily germinate if conditions are favourable. Abundant.

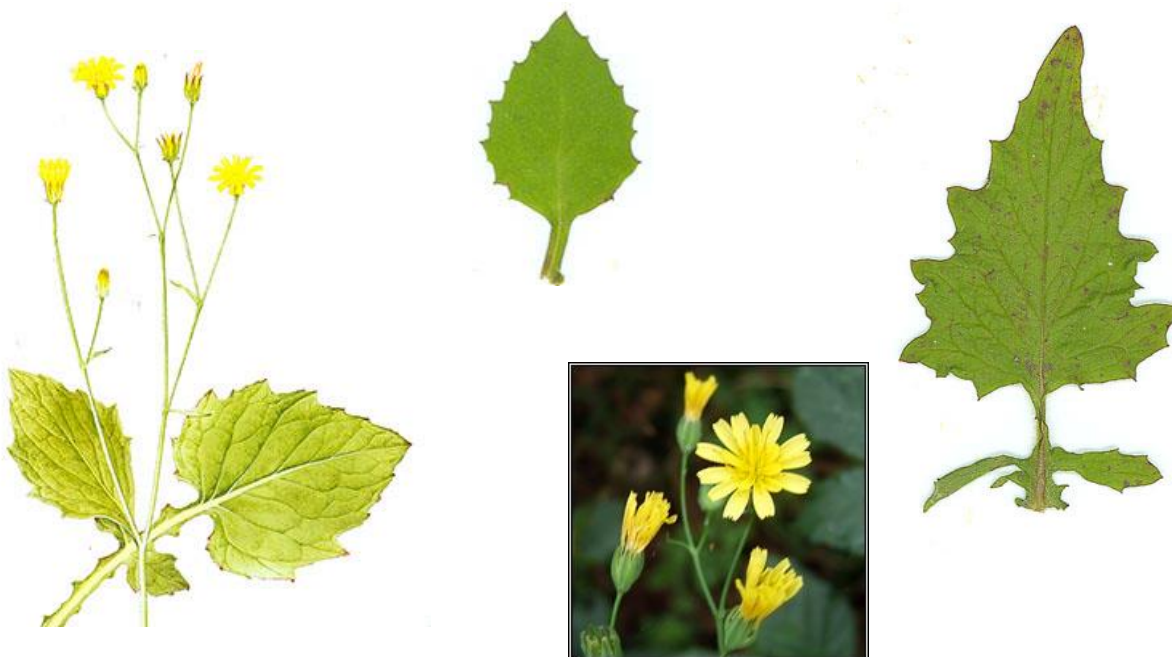


Nipplewort – *Lapsana communis* (A)



Nipplewort is a common enough weed of waste places and occasionally seen in arable situations but doesn't register too highly on the Richter scale of weed problems. An erect annual growing up to 75 cm it flowers from June to September. The yellow flowers can look rather similar to other weeds of the same family such as smooth sowthistle and hawkweed but take a good look at the leaf shapes below - as good an indicator you'll get for this weed. The leaves are softly hairy to the touch and appear singly - not in pairs. Upright habit. Very frequent.

Similar: could be confused in early growth stages with smooth sowthistle but the latter has totally smooth and hairless leaves.



Cat's Ear – *Hypochoeris radicata* (P)

This weed that you'll find growing in waste places and lawns could easily enough be confused with dandelion as both the leaves and flowers are rather similar. However there is one key difference: the leaves of dandelion are smooth but those of cat's ear are hairy. Also the flowering stems are taller and can be branched. The tips of the bracts just behind the flowering head are purple tipped. Tends to avoid calcareous soils. Common.

Just to confuse matters there are other dandelion type plants that can end up as lawn weeds. Smooth hawkbeard (*Crepis capillaris*), Rough hawkbeard (*Crepis biennis*) and Autumn Hawkbit (*Leontodon autumnalis*) are three to look out for.



The yellow flowered members of the daisy family can be difficult to tell apart e.g. the plant on the bottom right is the rosette stage of *C. biennis* that looks like Cat's Ear.

Ragwort – *Senecio jacobaea* (B)



Ragwort is abundant throughout the countryside despite the fact that it's one of the few species that's included in the Noxious Weeds Act. As such it will inevitably find its way onto horticultural holdings by means of windborne fluffy seeds. It's ends up establishing itself on disturbed ground and also on lawns.

It is poisonous to livestock especially cattle and horses but unless grass is very scarce they won't eat ragwort in the field. The problem is when ragwort ends up in hay or silage with livestock not being able to differentiate between grass and weed. The toxic compounds are not affected by drying or ensiling.

It's very often listed as a biennial plant but as it can take more than two years to flower it can also be considered as a short lived perennial.

When in flower from June to November it is readily recognisable but not quite so in the vegetative stage. Abundant.



Rosette stage

Dandelion – *Taraxacum officinale* (P)



Dandelions are recognised by just about everybody with their familiar yellow flowers and seed heads and seem to be everywhere when in full flower in late March and April. They are perennials that form a characteristic taproot and rosette of leaves that readily regrows if pulled or hoed off. The seeds when mature are shaped like miniature parachutes that allow them to be blown by the wind and disperse widely. Dandelion is one of the commonest lawn weeds and is also readily found in shrub borders, waste ground, grassland and roadsides.

Similar species: when not in flower the leaves could be mistaken for Hawkbit or Cat's Ear. As you can see from the illustration below the leaf shape is almost shark like and is smooth and hairless.



Dandelions flower from March to October but a flush occurs from the end of March into April

Did you ever blow the seed heads off a dandelion? Everyone has. The magazine Nature published a fascinating bit of research into how dandelion seed can transport themselves, at times, long distances. One of the reasons no doubt behind the success of an extremely ubiquitous plant.

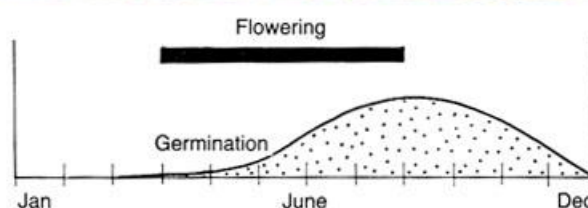
Check out: <https://www.nature.com/articles/d41586-018-07084-8>

Also: https://www.youtube.com/watch?v=UQ_QqtXoyQw

BRASSICACEAE (formerly CRUCIFERAE)

Crops: cabbage, sprouts, cauliflower, broccoli, swede, radish, turnip, rocket

Hairy Bitter Cress – *Cardamine hirsuta* (A)



This one is more of a garden/nursery weed than a field weed. Hairy Bitter Cress can become abundant in areas where it becomes established - it can be unwittingly introduced via a garden centre container plant purchase. The cotyledons are oval and the first true leaves are kidney shaped. The adult leaves are fairly characteristic and this combined with small white flowers makes it a reasonably easy weed to identify. It's a very adaptable weed in that it can flower and set seed as a tiny plant. When the seed capsule is ripe it has an explosive mechanism that can fling the seeds up to 0.75 m - you can feel the seeds hitting your hand if you are pulling out mature plants. A very successful garden weed. Very frequent.



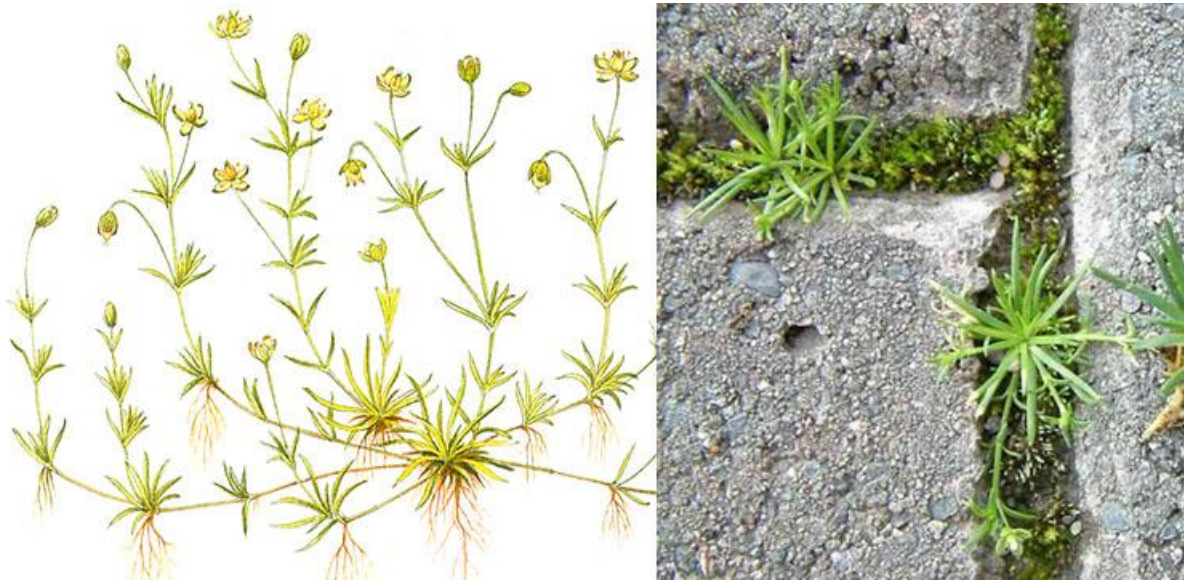
Similar: easily confused with wavy bitter cress (*C. flexuosa*) which is quite a common species and often grows side by side with HBC. It's a somewhat bigger plant, with a slightly



wavy flowering stem the base of which is downy. The base of the stem of HBC is hairless. Often overlooked.

CARYOPHYLLACEAE

Pearlwort – *Sagina procumbens* (P)



Pearlwort is an abundant plant that crops up on paths, banks, wall-tops, lawns, grass verges and waste ground, usually in damp and shady places. It's a small plant with creeping stems and if it has the room will form a mat of vegetation; but you'll most often see it growing in cracks between pavement slabs or in tarmacadam.



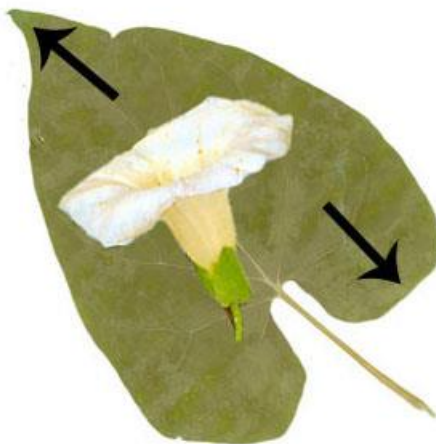
Can grow to quite a size if the room is available

CONVOLVULACEAE

Crops: Sweet potato

There are three plants with rather similar looking leaves, two in the Convolvulus family (mentioned below) and one is a Polygonum, namely Black Bindweed.

Hedge Bindweed – *Calystegia sepium* (P)

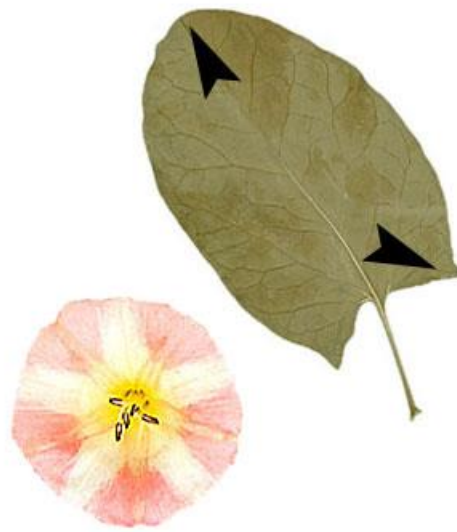


This is a very attractive perennial weed with twining stems and distinctive big white trumpet shaped flowers in the months of July to September. What's also distinctive about this weed is the leaf which is pointed at the top and has broad basal lobes. Often seen clambering through hedges, it's a dam nuisance if it gets into a garden growing amongst shrubs as it's difficult or impossible to eradicate. This is due to the fact that it spreads mainly through underground stems called rhizomes. The aerial shoots die down in autumn and the plant overwinters as rhizomes in the soil. Few seed are set by the flowers. Frequent.



Hedge bindweed spreads through the soil via rhizomes which are brittle when pulled up

Field Bindweed – *Convolvulus arvensis* (P)



This one is smaller in all its parts than Hedge Bindweed, is much less frequent and tends to clamber along the ground. The leaves are distinctly different - exact opposite in fact to Hedge Bindweed - the lobes are pointed and the apex is often rounded especially as the leaf gets older. Tends to persist due to its creeping underground rhizomes.

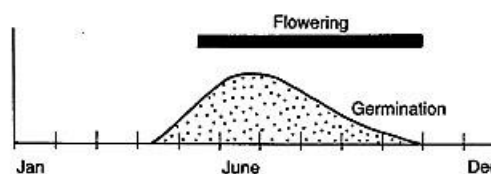
The flowers, which appear during the summer, have a distinctive pink tinge to them. The Latin name 'arvensis' means 'in arable ground' but it's far more commonly found on rough ground, roadsides and railway tracks. Occasional.



EUPHORBIACEAE

There are three weeds in this family - latex (milky fluid apparent when you break the stem) is present with the two spurges and absent in annual mercury. The spurges are interesting from a location point of view - petty spurge tends to be associated with gardens and sun spurge with arable fields. Why this should be so, I don't know - there may be a partial shade requirement for *E. peplus*.

Petty Spurge – *Euphorbia peplus* (A)



Petty spurge can become locally abundant in a garden. The flowers are insignificant but the plant is pretty distinctive and unlikely to be confused with anything else. Except perhaps its bigger brother, sun spurge, but even here petty spurge is a distinctly smaller plant in both height and leaf size. The cotyledons are not much help to you bar they look like a mini running track. Presence of latex is a key feature. This sap has been developed as a cure for certain types of skin cancer in Australia. Height: 5-15 cm. Very frequent in the southern half, decreasing northwards.



Crop of petty spurge grown for anti-cancer chemical production

Annual Mercury – *Mercurialis annua* (A)



The reason this weed is included in a 'common' list is for the rather parochial reason that it's common in Kinsealy. Not so sure about the rest of the country. Occurs most frequently as a garden weed and on waste ground, usually on light ground. It's a low growing annual with smooth leaves. It flowers from July to October with male and female flowers on separate plants - the male flowers (illustrated) are distinctive. Frequent around Dublin, local elsewhere in the southern half.



Annual mercury growing in a cabbage field near Portmarnock, Co Dublin. Very unusual tillage weed.

FABACEAE (formerly LEGUMINOSAE)

Crops: peas, beans

Black Medick – *Medicago lupulina* (P)



This is a common and widespread wild flower that you'll see growing along roadsides, in grassland, waste areas and occasionally in lawns. It favours well drained calcareous soils, avoiding the more acidic habitats. Black Medic flowers from May to August and you can confuse this species with yellow clover but the leaves distinguish it - they are softly hairy and have a small point at the top of each leaflet.

Similar: yellow clover

Red Clover – *Trifolium pratense* (P)

There are three very common clovers that are easy to remember and very simple to identify once they are in flower: red, white and yellow clover - with the names referring to the colour of the flowers.

Red clover is found less often in a horticultural context than its white and yellow cousins but will turn up as it's found in abundance in meadows, pastures and along roadsides. It is often grown as a green manure as it fixes nitrogen and produces large amounts of dry matter. Flowers from May to September.



Yellow Clover – *Trifolium dubium* (P)



Around about the middle of March I call this plant shamrock; for the rest of the year I refer to it as yellow clover. Mind you the official common name is rather unilluminating Lesser Trefoil. Either way you'll find this abundant little plant in a variety of habitats: waste ground, roadsides, pastures, sand dunes and lawns.

When out of flower with just the leaves to go by it could be confused with the other trefoils - in flower (May-August) it's reasonably distinctive. The small yellow flower heads have around 10-15 flowers per head - this distinguishes it from *T. micranthum* which has only 2-6 flowers. You can sometimes find this species growing in lawns alongside yellow and white clover. The other yellow flowered species is Black Medic but the larger, softly hairy leaves which have a little point at the tip of each leaflet distinguish it from yellow clover. Abundant.

Similar: black medic and to white clover when not in flower. The leaves of white clover tend to be a little larger than yellow clover.



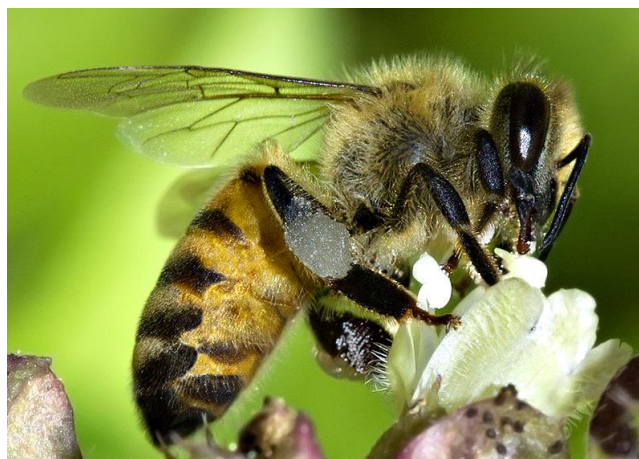
White Clover – *Trifolium repens* (P)



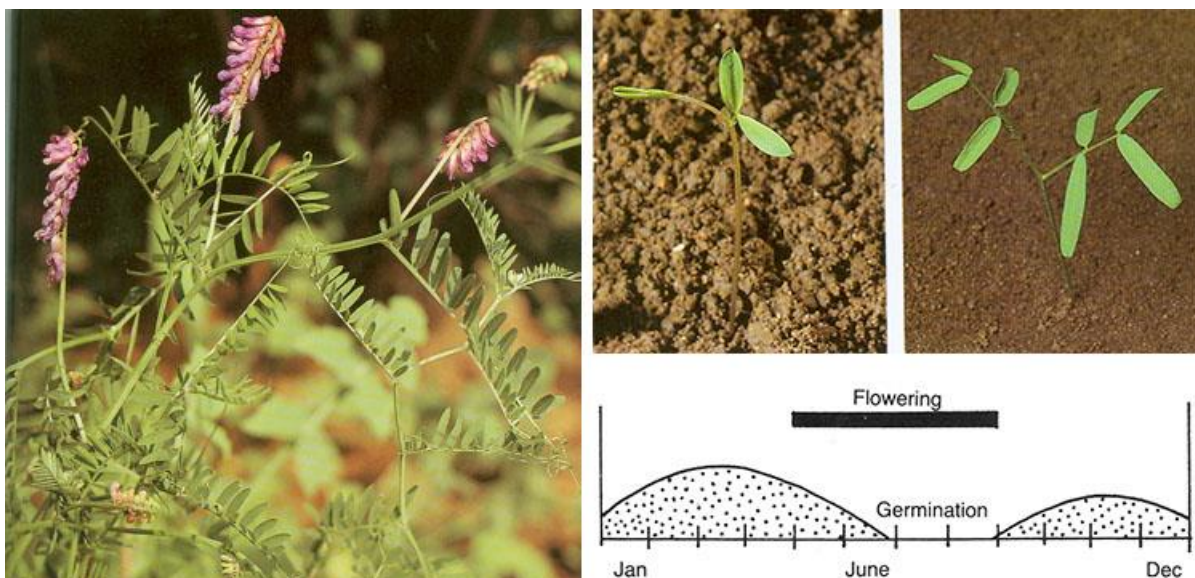
If you want to find this species start looking in grassy areas: pasture fields or the nearest lawn. Farmers are now encouraged to have clover in their grassland as it fixes nitrogen from the air and saves on fertiliser. The gardener mightn't be quite so keen on it if it appears in his lawn, even though it's quite a pleasant plant in its own right. Flowers May to September.

It's a perennial that spreads itself vegetatively with low growing stems that root at the nodes and also seeds itself freely. The tri-foliolate leaves have characteristic markings on the leaves - though not always present - and the flower clusters are white that droop when the seed has set.

Clover is an important plant for the beekeeper as it is attractive to bees who collect nectar from the blossoms. The flow of nectar is best in warm sunny weather from clover growing on limey soils with plenty of moisture.



Common Vetch – *Vicia cracca* (P)



There are two vetch species - both equally abundant. *Vicia cracca*, the common vetch and *V. sepium*, the bush vetch. You'll notice them when in flower along the roadside verges - the earlier flowering bush vetch from April on, and the later flowering prettier common vetch from June on.

Vetch can become a nuisance in the garden if it establishes itself in shrubberies as it's difficult to get rid of with its extensive root system and twining stems. The leaves are pretty good pointer to this weed - you get a series of leaflets growing on either side of a central axis - this is known as a pinnate leaf. The flowers are typically pea shaped ranging in colour from dull purple of the bush vetch to a more attractive purple-blue of the common vetch.

Similar: common vetch is very similar to the bush vetch but the latter species has broader leaves.



Bush vetch

LAMIACEAE

Selfheal – *Prunella vulgaris* (P)



This is a patch forming, slightly hairy perennial with a creeping and rooting stem but more or less erect flowering shoots. Selfheal naturally grows in pasture land so it quite readily finds a home for itself in lawns especially in damper situations. Its creeping stem allows it to form dense mats choking out the grass.

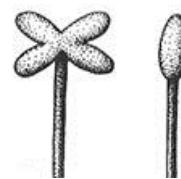


American willowherb growing from a rootstock in the spring

ONAGRACEAE

There are quite a few willowherbs and with the exception of Rosebay Willowherb it can be a bit confusing to tell them apart.

There are five species that are common: Broad Leaved, American, Hoary, Rosebay and Great willowherb. One of the ways of telling them apart is to study the shape of the stigma (central flower part) - it can be 4-lobed or club shaped - see the diagram on your right. All the willowherbs produce airborne seed that means they can spread widely and colonise any waste or disturbed ground. They are all perennials herbaceous type plants that die down in the autumn and overwinter as a rootstock. Summer flowering. All the species mentioned are very common.



American Willowherb – *Epilobium ciliatum* (P)

This is an immigrant from across the Atlantic that took big time to its new abode. It was first recorded in 1958 in Arklow but wasn't until the 1980's that it started to spread. It's now found in all corners of the Irish countryside. It grows 60-120 cm high, the flowers are small (8-10 mm wide), tend to be held in an upright position in bud, petals are pale pink and deeply cleft and the stigma is club shaped. Also distinguished by the lower part of the stem being reddish in colour. Could be confused with broad leaved WH and hoary WH, but the latter species has softly hairy leaves. Abundant.



Broad Leaved Willowherb – *Epilobium montanum* (P)



Look out for:

- Broad bottom leaves
- Leaves light green in colour and smooth
- Quite small in height
- You can get multiple shoots with American, less so with broadleaved
- Flower with 4 lobed stigma

This very common species has smooth oval lanceolate leaves that are opposite on the lower stem but alternate higher up. In comparison to American willowherb the lower leaves are more broad in shape and brighter green in colour; the American has a hint of red about the leaves and the lower stems are usually distinctly red. The purplish pink flowers are 6-12 mm across with a 4 lobed stigma. Found on cultivated and waste ground. Shade tolerant. Tends to be shorter than other species: 15-60 cm tall.

Similar: American willowherb which is taller, redder, with club stigma.



Great / Hoary Willowherb – *Epilobium hirsutum* / *E. parviflorum* (P)

These two species are grouped together as both have leaves which are softly hairy: a feature that distinguishes them from the other three species but can cause confusion between these two early in the season. The leaf bases of great willowherb visibly clasps the stem (see insert) whilst hoary willowherb does not; it's a subtle point and you need to look carefully, but is there. Later on differences in flower and plant height help to distinguish the two species. Whilst both have four lobed stigmas, the flowers of the great willowherb are large, 20 mm across, and dark pink in comparison to Hoary Willowherb which has pale pink flowers, 8-10 mm across. Great willowherb is significantly taller than hoary willowherb - up to 1.5 m or thereabouts versus less than a metre. These two are often found growing in wet and damp areas but also on dry soil.



Great willowherb *Epilobium hirsutum*



E. hirsutum



E. parviflorum



Rosebay willowherb

Rosebay willowherb, a tall vigorous plant, is different to the other willowherbs in both leaf and flower - indeed, it's now in a different genus, *Chamerion*.

OXALIDACEAE

Procumbent Yellow Sorrel – *Oxalis corniculata* (P)



This is another one of those garden escapes - introduced as a choice plant that subsequently becomes very un-choice as a garden weed. *Oxalis* is a distinctive genus with its trifoliate leaf with wild and garden representatives in the mix. This is a perennial that will seed itself all over the place if let. Once it gets going it will grow into an ever expanding clump by its ability to root at the nodes (a node is where a leaf is joined to a stem). Flowers from May to October. There is a purple/brown leaved variant of this species; see right-hand image above. Quite persistent once established in a garden. Don't let it in.



Growing in a glasshouse
in Kinsealy

PLANTAGINACEAE

Greater Plantain – *Plantago major* (P)



This tough old plant is widespread on disturbed ground, paths, tracks and gateways as it is very tolerant of compact ground. It will also show up on lawns alongside its sibling, ribwort plantain. Abundant.

Ribwort Plantain – *Plantago lanceolata* (P)



The very distinctive flower heads and narrower leaves mark this one out from the great plantain. Equally abundant this species is found in similar locations but is the least common of the two in lawns. Abundant.

POLYGONACEAE

Crops: rhubarb

Curled Dock – *Rumex crispus* (P)

Broad Leaved Dock – *Rumex obtusifolius* (P)

Let's group these two commonly found docks together. Identification is simple: the Broad Leaved Dock, you've guessed it, has a broad leaf, and the Curled Dock has a narrow leaf. Note also the distinctive curling or waving of the edge of the Curled Dock. Presumably hence the common name. Both are abundant.



While docks are primarily a weed of grassland, they can constitute a problem in horticultural areas because of their ability to colonise disturbed ground and waste areas. Docks are not usually a problem on arable ground unless dock infested pasture is ploughed up for a tillage crop.

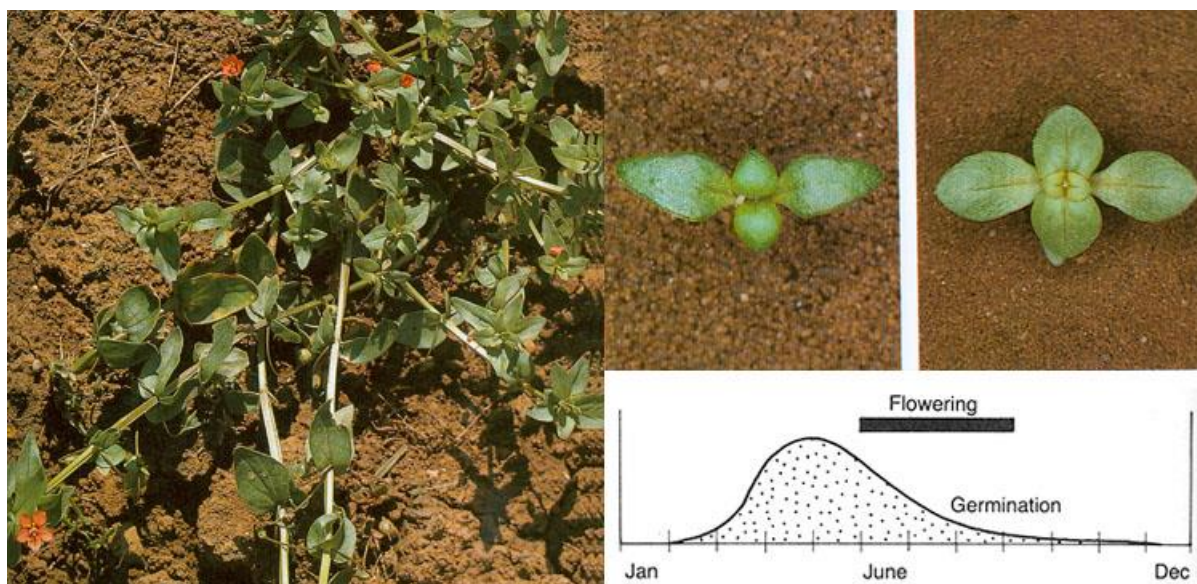
The dock is a prolific seeder whose seeds can remain viable in the soil for decades. A vigorous taproot system means that docks can be difficult to kill with herbicides and any bits of root left after digging out have the ability to regrow.



Docks are one of the weeds listed under the Noxious Weeds Act of 1936, whereby landowners are obliged to remove the offending plants. When was the last time that this Act was enforced??

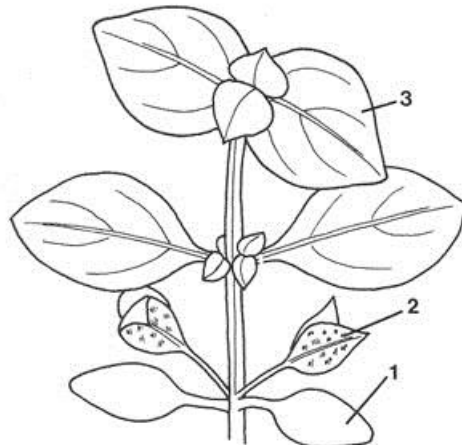
PRIMULACEAE

Scarlet Pimpernel – *Anagallis arvensis* (A)



Scarlet Pimpernel is a common enough weed that can pop up in vegetable gardens and waste ground and is easily identifiable when in flower with its red flowers that open up in sunlight but remain closed on dull or rainy days. In the seedling stage it could be confused with chickweed but watch out for the following points:

1. Cotyledons are small and pointed, close to the ground and are shiny, dark green and triangular.
2. First true leaves have dark spots on the underside.
3. Adult leaves are triangular, shiny and smooth.



This little weed is pretty inoffensive and never causes much trouble - you will find it in arable fields but its not competitive with crop growth. Keep an eye out for a rather rare form of scarlet pimpernel with blue flowers. Frequent.

Similar: chickweed seedlings that have longer hypocotyls and are much lighter green.

RANUNCULACEAE

If you see a pasture field turning yellow in April, it's dandelions coming into flower; if you see a field turning yellow in May, it's buttercups. There are three common species which can all look a little similar but there are a number of clues to look out in order to name them correctly.

Creeping Buttercup – *Ranunculus repens* (P)



This buttercup crops up everywhere - lawns, pasture, tillage fields, gardens and waste ground. It thrives on wet, heavy clay soils and is often the first to appear in poached ground in grassland fields. Compared to the other two species of buttercup it's lower growing and spreads into large clumps via creeping runners.

The bright yellow flowers appear from May to August have sepals that spread horizontally and the flower stalk is furrowed - easy to detect if you run the stalk between finger and thumb. The leaves are characteristically broad in shape - different from the two other species. Abundant.



Meadow Buttercup – *Ranunculus acris* (P)

The meadow buttercup grows in fields and alongside roads. It can be distinguished from the bulbous buttercup by the horizontally spreading sepals and the smooth flower stem. Can grow to about 70 cm. Abundant.



Bulbous Buttercup – *Ranunculus bulbosus* (P)

You'll find this one growing side by side with the meadow buttercup in pastures. How to tell them apart? Take a close look at the flowers of bulbous



B for bulbous and bent back

buttercup and notice that the sepals are bent back and if you roll the flower stem between your fingers you'll feel the furrows. The other difference is the swollen base of the plant. Flowers April to July.

Celandine – *Ficaria verna* (P)



You cannot help but notice this little plant in flower in early spring around February, March time. It has bright shiny yellow flowers that look a little like buttercups. The rootstock is a mass of small white tubers. I wonder did it originate as a woodland plant as it develops its leaves in late autumn, flowers in early spring and has disappeared by early summer; everything done and dusted before the forest canopy closes over. Very common in shady habitats, gardens, disturbed roadsides, hedgerows and woodlands.



ROSACEAE

Silverweed – *Potentilla anserina* (P)



Widespread and abundant weed of roadsides, farm tracks, waste ground and field gateways. Can become a problem in borders as it spreads vegetatively by over ground runners.

Creeping Cinquefoil – *Potentilla reptans* (P)

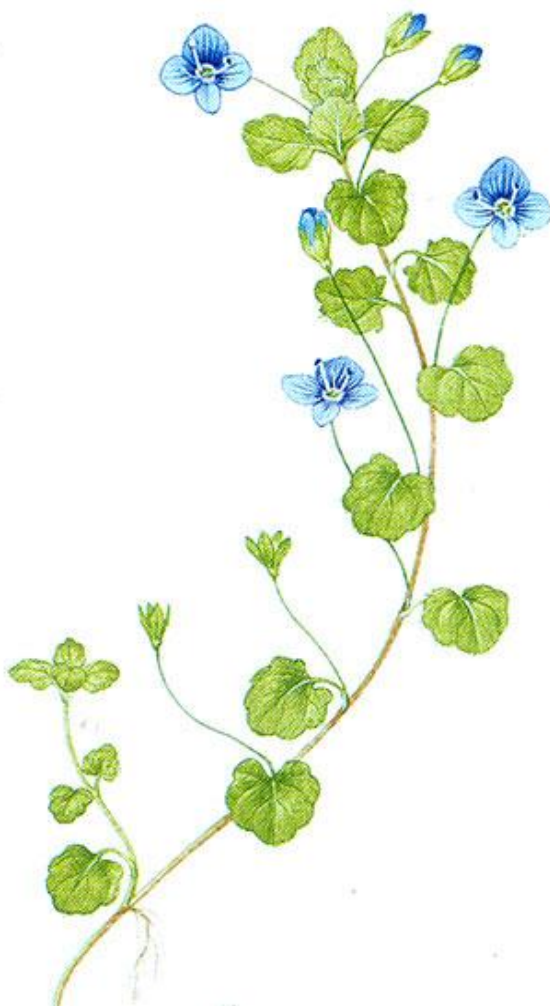


The name 'cinquefoil' translates as 'five leaves' and that's what you get with this distinctive wild flower that you'll find growing on roadsides, meadows, sandy ground, waste areas and occasionally in gardens. It's a perennial plant with yellow flowers that appear from June to September. If allowed to establish it can quite quickly spread from overground rooting stems called stolons.

SCROPHULARIACEAE

There are 15 species of speedwell listed in Webb but we'll concern ourselves with just four here - two are lawn weeds and one is found in rough areas and borders and the last one is a common wild flower. All have distinctive blue flowers.

Slender Speedwell – *Veronica filiformis* (P)



This species was introduced as a rock garden plant in Britain in the early 1800's from its natural home in Turkey and the Caucasus. In 1927 it was first recorded as an established garden escape. Since then it has spread throughout Britain and Ireland to become a troublesome lawn weed. Once established in a lawn it tends to persist as it is resistant to the majority of lawn herbicides. When in full flower during April and May it can look quite pretty growing in a long grass situation.

Similar: under conditions of the lawn being tightly cut, both the leaves of slender speedwell and Helxine can look rather similar but the stems of Helxine have a slight reddish hue to them.

Wall Speedwell – *Veronica arvensis* (A)



I find this plant growing in shrubberies, waste ground and despite the name, rarely on walls. Sometimes you'll find it growing in arable fields. Likes dry ground.

There's a few things to look out for in identifying wall speedwell: it's a small plant with an erect habit, very small bright blue flowers, downy bluntly toothed leaves and a reddish coloured stem. Frequent.



Thyme leaved Speedwell – *Veronica serpyllifolia* (P)

You will occasionally find this growing in a lawn but is a little confusing as its leaves don't look like a typical speedwell - they are smooth, oval and shortly stalked. The small pale blue flowers, if the mower blades don't get them, are borne on erect stems. It's a perennial plant with short creeping stems.



Another species that will catch your eye when in bloom is germander speedwell (*V. chamaedrys*) as it has bright blue flowers from March to July. Commonly found growing on hedge banks and along roadsides and sometimes in amenity grass areas. Its chief defining characteristic is two lines of hairs growing down along the stem. Illustrated left.

URTICACEAE

Helxine – *Soleirolia solerolii* (A)



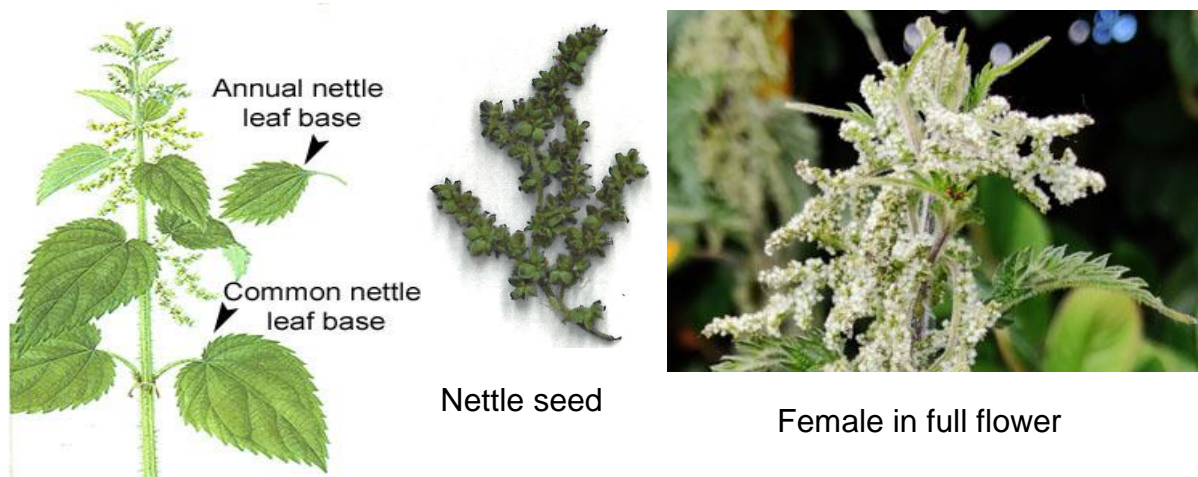
Helxine (or Mind Your Own Business) is a weed of Dublin suburban gardens (particularly on the southside) and elsewhere in coastal counties - much less prevalent inland.

It's a funny sort of a plant with an interesting history. It hails from the islands of the western Mediterranean and was introduced as a glasshouse conservatory plant from whence it escaped out into the garden. It's a persistent weed and strange to say is still on sale in garden centres. It's not fully hardy as it tends to get blackened with frost but always recovers. It got through the 2009/10 winter, which says a lot. An odd characteristic of the plant is that you won't find it growing in the wild - it's always stays close to human habitation.

It's a low growing, mat forming, evergreen perennial that you'll find growing in lawns, shrub borders, clambering up walls and in amongst paving slabs. It also favours the shadier parts of the garden. The leaves are small and the tiny stems have a slight redness about them. The flowers are so small you just won't notice them but must set seed as it will readily re-establish itself from seedlings.

Similar: in closely mown turf you can confuse this species with slender speedwell, but if you look closely, the leaves of Helxine are alternate while the leaves of the speedwell are opposite.

Common Nettle – *Urtica dioica* (P)



More associated with agriculture than horticulture but let's not fight over it as Common Nettle is pretty ubiquitous. Often seen growing in patches in fields and around farmyards. It's an indicator plant of fertile soil and is especially characteristic of phosphorus rich habitats. You'll often see it growing on top of old dung heaps.

Next time you come across clumps of flowering nettles (June to August) take a closer look at them and see can you spot a difference. Hint No 1: the specific name is dioica, meaning that the male and female flowers are on different plants. Hint No 2: nettles have branched yellow roots and horizontal rhizomes just below the surface, that spread a single plant to an ever increasing sized clump as the years roll by. So you end up with separate clumps of nettles that are either all male or all female flowered - can be difficult to tell them apart but male flowers can have a purple hue about them and female are whitish when in full flower; but take note that flower colour can vary. The flowers are wind pollinated.

Similar species: common nettle's little brother is annual nettle which is a lot smaller in size and tends to be found in arable ground. A good way to distinguish the two is have a look at the leaves: the base of the annual nettle is V shaped and the base of the common nettle is heart shaped.



The aerial portion of the plant dies back during the winter but underneath the ground there is an extensive root and rhizome system. New growth begins in early spring.

Bonus plant! Nostoc



Nostoc growing in a badly drained lawn

Nostoc is an unusual looking creature that you will sometimes come across in wet areas. It used to be recorded as a blue-green algae but is now one of the cyanobacteria. It can photosynthesise and fix nitrogen and has been around for millions of years. If you find yourself slightly repulsed by the look or feel of Nostoc remember this: the cyanobacteria were of paramount importance in paving the way for the entry of higher life forms (that's you and me) onto planet earth. We wouldn't be here without them.

I've seen it on very damp lawns and on rough areas where water is lying about. To control it - not sure - but if you dry up or drain the area it will dry up and disappear = best approach. On the chemical front pelargonic acid (Katoun Gold) has done well in trials as an organic based contact herbicide; indeed works well on all manner of low life such as mosses and liverworts so might control Nostoc. Sulphate of iron that works well on lawn moss at 5 g/m² is another candidate. You can also buy products to clean algae off hard surfaces and they might be worth a try e.g. MMC Pro.



Nostoc growing in a wet area of a farmyard

References, acknowledgements and thanks:

Webb's, An Irish Flora by John Parnell and Tom Curtis
The Wild Flowers of the British Isles by Ian Garrard and David Streeter
ADAS Colour Atlas of Weed Seedlings by JB Williams and JR Morrison
Weeds in Sugar Beet by Agrevo
Wild Flowers of Britain and Ireland by M Blamey, R Fitter and A Fitter
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Flora of County Dublin by The Dublin Naturalists Field Club
Flora of County Waterford by Paul Green
Flora of Inner Dublin by Peter Wyse Jackson and Micheline Sheehy Skeffington
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British Flora by Bentham and Hooker
The Arable Weeds of Europe by Martin Hanf
Irish Wildflowers website: www.irishwildflowers.ie

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