MANNINGHAM

Weeds

Identification and control of common weeds in Manningham

Contents

The third edition of the Weed ID booklet was compiled by Manningham City Council's Economic and Environmental Planning Unit. The original edition used information provided by South Gippsland Shire Council.

Note: In some situations, a permit may be required before removing large trees or trees indigenous to other parts of Victoria, even if they are environmental weeds.

Please check with Council's Statutory Planning Unit on 9840 9495.

What is a weed?

Weeds are plants that invade and thrive in environments where they do not naturally occur. In doing so, they threaten sustainable agricultural production, and change the natural diversity and balance of ecological communities. Weeds threaten the survival of many plants and animals by competing with native plants for space, nutrients and sunlight, and by changing local environments.

Types of weeds

Weeds of National Significance (WONS)

These are a serious threat to agriculture, the environment or community health and cannot be sold or traded.

Weeds of National Significance are those that have been identified as already causing significant environmental damage under the National Weeds Strategy 1997 (currently under review). There are 20 WONS. Six are very serious weeds in Manningham and are described in this booklet.

Environmental Weeds

These are plants that threaten natural ecosystems, and can invade and outcompete native plant communities, which reduces plant diversity and habitat for native animals. Many of these weeds are not listed as noxious, despite their severe level of threat to natural ecosystems.

The environmental weed ratings used in this booklet are mostly in line with Carr, Yugovic and Robinson 1992, *Environmental Weed Invasions in Victoria*. Some relate more specifically to local conditions in Manningham.

Declared Noxious Weeds

In Victoria these are plants that have been proclaimed under the *Catchment and Land Protection Act 1994* (currently under review). Landholders are required to control or eradicate these weeds. (See also the Port Phillip and Westernport Catchment Management Authority Weed Action Plan. Manningham is in PPW East). Noxious weeds can be categorised as follows:

1. State Prohibited

These weeds either do not occur in Victoria, but pose a significant threat if they invade, or are present, pose a serious threat and can be reasonably expected to be eradicated. The Victorian Government is responsible for control of these weeds.

2. Restricted Weeds

Plants that pose an unacceptable risk of spread if they are sold or traded.

3. Regionally Prohibited Weeds

In general, these weeds are not widely distributed in a region, but are capable of spreading further and must be managed to eradicate them from a region. Landowners, managers and public land authorities are responsible for control on private land, but not on roadsides adjoining their property.

4. Regionally Controlled Weeds

Regionally Controlled Weeds are usually widespread and considered important in a region. To prevent their spread, continuing control measures are required. Landowners and managers are required to take all reasonable steps to control and prevent the spread of these weeds on their land and adjoining roadsides.

Control

The first step in weed control is to identify the weed, its life cycle and its mode of establishment. A weed management plan for containment or eradication can then be developed that:

- Adopts a long term approach
- Uses more than one control method
- Encourages an integrated control approach that does not necessarily rely simply on the use of chemicals
- Reduces costs over time
- Minimises environmental damage

While not specific to individual weed species, changed fire regimes have generally favoured introduced species and contributed to a lack of regeneration and vigour in local bushland. Therefore, use of fire should be considered as a part of an overall weed management plan, but always seek expert advice and check legal requirements.

Throughout this booklet, some appropriate control methods for each weed are shown using the symbols on the following page.

Methods of Control

	Prevention	Do not dump garden waste in bushland or on roadsides. Do not import soil or use unwashed earth moving machinery. Do not import stock feed. Do not plant potential environmental weeds in your garden. Never remove rocks or local plants from bushland areas, and try to stick to designated paths. Disturbed sites are easy targets for weed invasion. These can be in pasture, native vegetation, gullies, streams, and roadsides. Disturbance includes anything that leaves bare soil (e.g. earthworks, clearing, overgrazing, tracks, fire and flood).
	Hand weeding	Ensure the whole plant (including the roots) is removed. This method is much easier, and causes less disturbance after rain. A knife, chisel or small digger is useful for some species. A spade or mattock can be used for larger or deep rooted plants.
	Mower with catcher	Mow immediately prior to seed drop to remove weed seed. This reduces bulk on site, as well as the tendency for cut material to smother the local native plants underneath it. Can also be used to reduce bulk before spot spraying as for 'brush cut and rake off'.
	Cut and paint	Cut the stem or trunk of the plant completely as near to the ground as possible. Immediately dab or paint an appropriate herbicide on the freshly cut surface. Most appropriate for small shrubs/trees. Woody vines can be treated the same way or by scraping the bark off the vine and dabbing the exposed wood.
	Drill/frill and fill	Drill holes or cut frills (an angular incision with a sharp tomahawk) into the trunk of the plant to just below the bark at 5-7cm spacings around the entire trunk as close to the ground as possible. Immediately fill with an appropriate herbicide. Most suitable for large shrubs and trees.
	Brush cut and rake off	Reduce the size (bulk) of the plant material to minimise non target damage when follow up spot spraying is done two weeks later. Brush cutting is also useful for containing the size of populations of bulbs such as Watsonia, which only produce a replacement bulb each year (brush cut flower stems before seeding). Can also be used before seed develops to prevent grasses or climbers.
	Spot spray	Spray target weed species with an appropriate herbicide. Avoid damage to non target species by carefully inspecting the site and identifying all species present, keep pressure low and move slowly, and always use a vegetable dye to see what has been sprayed. Don't spray when plants are stressed (i.e. too hot, dry or cold). Note: Bulbs should generally be sprayed at the "Bulb Exhaustion" stage; mid winter for most species. Blackberries should be sprayed in summer.
	Cut aerial growth	Aerial growth of vines (i.e. anything growing up a tree or shrub, not along the ground) can be controlled by simply cutting the stems. No removal or poison is necessary. This will not kill the plant but may prevent seed being produced and spread.

Disposal of garden rubbish

When disposing of plant material it is best to compost, burn, or put the waste in your green waste bin. Composting may not effectively kill seeds, bulbs, rhizomes, etc, so only compost non-reproductive plant parts. Burning off is only permitted in some areas and always requires a permit. If these methods are not possible, take the plant material to a landfill site to be buried.

Remember: do not dump your rubbish on the roadside or in the bush!

Caution! When using chemical control

- Some chemical products will require an Agricultural Chemical Users Permit
- Always seek advice before buying a product, read the label and the Material Safety Data Sheet, and follow the directions on usage and handling
- Always wear protective clothing as stated on the label, and use clean equipment
- If in doubt, ring the Department of Primary Industries (131 186). Beware of spray reaching non–target species
- Do not spray on windy days, if rain is likely or in extreme temperatures
- Consider using an experienced environmental contractor instead of doing it yourself

Use chemical control only if manual control is impractical or would cause excessive disturbance. If chemical control is necessary near drainage lines or streams, use extreme caution as the effects on aquatic life can be devastating even in minute amounts. Always seek expert advice.

Weed List

The following pages list weeds alphabetically catergorised by lifeform, using common names.

An index of common and botanical names can be found at the end of this guide. The weeds pictured threaten ecological communities and agricultural areas in this region.

Some of these plants may not be problematic in other areas. Please contact the Department of Primary Industries or your local council for further information.

Many of these plants may still be available from nurseries, despite their weed potential.

Agapanthus

Agapanthus praecox ssp. *orientalis*

Status:
Serious environmental weed
Garden escape
Should not be planted on roadsides

Features: Perennial tufted lily. Thick, glossy succulent leaves to 80cm long and 5cm wide. Flower stalks to 1.2m tall, massed tubular blue or white flowers in summer. Can form huge clumps displacing all other vegetation. Often harbours rabbits.

Dispersal: Numerous seeds spread readily along drainage lines in water. Broken pieces of dense fleshy roots re–shoot readily. Seeds and root pieces are both spread by soil movement and dumped garden rubbish. Individual garden plants can be contained by removing flower heads in late summer before seeds form.

Control:

Angled Onion

Allium triquetrum

Status:
NOXIOUS
Regionally controlled
Very serious environmental weed
Found on moist slopes, stream banks, roadsides, and in gullies and waste areas.

Features: Herb with stem 20 – 40cm high, triangular in cross section, two to three leaves near base of stem. Bulbs are small, white and ovoid. White, bell–shaped flowers from winter to spring. Seeds form in spring. Bulbs multiply. Strong onion smell.

Dispersal: Seeds and bulbs are carried by water down hills, creeks and drainage lines, and by movement of soil contaminated with bulbs or seeds. Ants also spread seeds.

Control:

Arum Lily

Zantedeschia aethiopica

Status:
Serious environmental weed
Garden escape
Found in moist areas, gullies and streams

Features: Perennial herb with a tuberous rhizome. Large glossy green arrowhead shaped leaves on long fleshy stalks to 1.5m. Large white funnel shaped flowers with a bright yellow spike in the middle, from late winter to spring.

Dispersal: Seeds spread by birds, foxes and water. Dumped garden plants with rhizomes can re–shoot.

Warning: Poisonous. Ingestion can be fatal.

Control:

Common Onion Grass

Romulea rosea var. *australis*

Status:
Serious environmental weed

Features: Upright perennial herb growing from an underground corm. Fine leaves to 35cm, oval in cross section. So tough that mowers leave them uncut or tattered. Small pink to purple flowers with yellow centres in spring. Abundant in pasture, roadsides and waste areas. Follows disturbance into bush.

Dispersal: Seed. Corms transported in contaminated soil.

Control:

Freesia

Freesia species hybrids

Status:
Serious environmental weed
Garden escape

Features: Upright perennial herb growing from an underground corm. Leaves up to 25cm long, mid vein prominent. Trumpet–shaped flowers in spring that are fragrant, cream to pale yellow, often with purple markings.

Dispersal: Seeds and bulbils. Corms transported in contaminated soil.

Similar Weeds: *Ixia* spp. (Ixias); *Sparaxis* spp. (Harlequin Flowers); *Tritonia lineata* (Lined Tritonia).

Control:

Watsonia

Watsonia meriana var. *bulbillifera*

Status:
NOXIOUS
Regionally controlled
Very serious environmental weed
Found in all habitats – prefers moist areas

Features: Perennial plant with pale green, stiff, sword–shaped leaves and prominent midrib. Leaves have ascending fan-like formation. Erect slender stems to 2m, with small sheath-like leaves. Flowers are orange to red and occur in late winter to spring. Plants die back in late summer to autumn. Reproduction is by corms and bulbils produced on the stem.

Dispersal: Movement of soil contaminated with corms or bulbils. Grading and slashing of roadsides, and dumped garden waste.

Control:

Bluebell Creeper

Billardiera fusiformis = Sollya heterophylla

Status:
Very serious environmental weed
Garden escape
Found in all habitats, invades bushland

Features: Evergreen, woody based, twining scrambler/climber with attractive blue flowers, followed by green then black berries. Native to Western Australia and was once a popular inclusion in native gardens. Shallow rooted.

Dispersal: Fruit is dispersed by birds and foxes.

Similar local native plants: *Billardiera mutabilis* (*ex Billardeira scandens*) (Common Apple–berry) is very similar but with yellow flowers and slightly hairy leaves.

Control:

Blue Periwinkle

Vinca major

Status:
Serious environmental weed
Garden escape
Often found in sites of historical disturbance

Features: Perennial scrambler with long layering stems (stolons). Leaves tough, in opposite pairs, ovate, shining, broad at base. Large solitary blue flowers in spring.

Dispersal: Some tip and node rooting may occur. Also by dumping of garden waste.

Control:

Bridal Creeper

Asparagus asparagoides

Status:
Weed of National Significance
NOXIOUS
Restricted
Very serious environmental weed

Features: Deciduous, scrambling climber. Thin straggling, sometimes spiny stems rising from an underground rhizome, with a mass of small tubers attached. Leaves are thin, shiny and broadly oval to rounded. Inconspicuous fragrant, green/white flowers in late winter to spring, followed by red berries in early summer. Plants die back over summer.

Dispersal: Berries spread by birds. Rhizomes and tubers in contaminated soil.

Control:

Herbicide treatment may require follow up over several years.

Note: The biological control is a rust fungus specific to Bridal Creeper (it does not affect other plants).

The rust reduces the plant's ability to produce energy as well as diverting available energy and moisture to the rust itself. Affected plants lose leaves early and produce fewer or no fruits, reducing spread.

Over time the energy reserves of the tubers will be depleted. The rust is suitable for release on large infestations. For more information contact Council's Environmental Officer.

Cape Ivy

Delairea odorata

Status:
Serious environmental weed
Garden escape

Features: Perennial vine, with slender twining purplish/green stems that can cover other vegetation to a considerable height. Alternate, fleshy ivy–like leaves have a strong smell when crushed. Small, yellow daisy flower heads from winter to spring.

Dispersal: Seeds dispersed by wind. Stems (stolons) root at nodes. Fragments of plant will regrow if left in contact with moist soil. Spread by dumping of garden waste. Disturbed bushland, waste places, streams, prefers moist sites.

Control:

Cleavers

Galium aparine

Status:
Environmental weed
Weed of moist disturbed areas and degraded bushland

Features: An annual sticky scrambling herb to 1m. Tends to cover surrounding vegetation. Leaves are arranged in a whorl of six to eight leaves, attached to a square stem. Small white star shaped flowers develop into a round, slightly prickly seedpod to 5mm diameter.

Dispersal: By seed which readily adheres to clothing and animals.

Similar local native plants: *Galium* species (Bedstraws); *Asperula* species (Woodruffs). All these are smaller and finer than Cleavers.

Similar weeds: There are two smaller *Galium* weed species locally, mainly found in gardens.

Control:

Creeping Buttercup

Ranunculus repens

Status:
Very serious environmental weed
Found in moist sites in pastures, gullies, streams

Features: Perennial herb with creeping runners and leaves on long stalks. Leaf blades divide into three lobes, which are toothed and divided further. Bright yellow flowers from winter to spring. Seeds in summer.

Dispersal: Spreads by seed and stolons, dumping of plants, altered drainage and grading of roadsides. Spreads readily into poorly drained and permanently moist areas.

Related weeds: *R. trilobus* (Large Annual Buttercup); *R.muricatus* (Sharp Buttercup).

Control:

English Ivy

Hedera helix

Status:
Very serious environmental weed
Garden escape
Found in moist sites, gullies and streams

Features: Woody, perennial plant, climbing to 30m and/or creeping along the ground and forming carpets. Shiny, triangular, lobed, dark green leaves with pale veins. Yellowish-green flowers, only on climbing parts in late March, followed by black fruit.

Note: Leaves look different on flowering parts of the plant. Climbing plants will kill trees in the long term. Spray treatment requires special permission and can only be carried out by a professional.

Dispersal: Readily regrows from small stem pieces. Seed spread by birds, foxes.

Control:

Japanese Honeysuckle

Lonicera japonica

Status:
Very serious environmental weed
Garden escape
Found in disturbed areas and invades bush. More vigorous in moist areas.

Features: Vigorous scrambler or climber to 8m. Opposite ovate leaves, lobed on juvenile plants. Fragrant yellow flowers in spring to summer, small blackberries in autumn. Dense clumps smother native groundstorey and can blanket shrubs and small trees.

Dispersal: Mainly by seed spread by birds, often from dumped garden refuse. Also reproduces vegetatively, with stems taking root and spreading.

Control:

Note: Spray treatment can be problematic and should only be carried out by a professional.

Wandering Tradescantia

Tradescantia fluminensis

Status:
Very serious environmental weed
Garden escape

Features: Perennial ground cover herb with soft glossy bright green oval leaves on succulent fragile stems. White flowers with three petals at the end of stems in summer.

Dispersal: Nodes readily take root if in contact with moist soil. Proliferates along waterways as plant fragments move down stream, often to the extent of excluding all other ground covers. Also from dumping of garden refuse.

Warning: May cause severe contact allergy in dogs.

Control:

Many indigenous grasses and sedges look similar to these weeds. If you are unsure of identification, please check with a Council Environmental Officer.

Annual Veldt-grass

Ehrharta longiflora

Status:
Very serious environmental weed

Features: Tufted annual grass 10 – 60cm high. Leaves are bright green with crinkled margins near base and a prominent mid vein. Flattened cylindrical flower stems (longer than leaves), with purplish nodes. Spikelets drooping, often purplish. Germinates in autumn and flowers from spring to summer.

Dispersal: Produces much viable seed so populations can increase in size quickly. Seed is spread by wind, water and slashing.

Control:

Brown-top Bent

Agrostis capillaris

Status:
Very serious environmental weed

Features: Perennial grass to 40cm, with narrow bluish-green leaves and long underground runners. Seed produced in summer. Suppresses and replaces native groundstorey vegetation. Harder to identify among other grasses

Dispersal: Spreads by rhizomes, seed, in hay and contaminated soil. Abundant in pastures and roadsides, and invades bushland.

Control:

Chilean Needle-grass

Nassella neesiana

Status:
Weed of National Significance
NOXIOUS
Restricted
Very serious environmental weed
Originates from roadsides and construction areas, invades bushland.

Features: Perennial tussock–forming grass. Flowering stems to 1m with purplish flowers. Seeds have a distinct collar at the base of the awn, unlike native Spear Grasses. Outcompetes and replaces native grass and other ground flora.

Dispersal: Seed is spread in contaminated soil, hay, basalt boulders used in landscaping and on machinery. Can be transported on the fur of animals or clothing. Seed known to live at least 60 years.

Similar local native plants: *Austrostipa* species (Spear Grasses).

Control:

Drain Flat-sedge

Cyperus eragrosits

Status:
Serious environmental weed
Found in moist sites, drainage lines and streams

Features: Tufted perennial sedge with triangular flowering stems to 1m high. Bright green leaves, shorter than flower stems. Dull green flowerheads changing to reddish–brown or straw coloured in summer.

Dispersal: Small seed is mainly spread by water. May also be transported by animals.

Similar local native plants: *Cyperus* and *Carex* species (Sedges)

Similar weeds: *Cyperus congestus* (Dense Flat Sedge).

Control:

Kikuyu Grass

Pennisetum clandestinum

Status:
Serious environmental weed
Garden escape

Features: Coarse, matted perennial with long rhizomes and stout, vigorous, much branching stolons. Able to climb up fences and poles etc. Bright green leaves. Flowers are inconspicuous.

Dispersal: Regrows readily from small pieces, after cutting or soil disturbance. Spreads from planted lawns and dumped garden waste.

Control:

Large Quaking-grass

Briza maxima

Status:
Very serious environmental weed
Tolerates very dry areas

Features: Upright annual grass 5 – 60 cm high. Weeping branchlets, small shell-like husks in early spring. Serious invader of native vegetation, where it occupies the intertussock spaces, outcompeting wildflowers and orchids and preventing germination of indigenous species.

Dispersal: Seed is carried by wind, water and animals.

Control:

Pampas Grass

Cortaderia selloana

Status:
Environmental weed
Garden escape

Features: Very large tussocky perennial grass to 3m. Bluish–green arching leaves with extremely sharp edges. Plume–like white flowers in late summer and autumn.

Dispersal: By seed, with up to 100,000 seeds produced from each flowerhead every year.

Control:

Panic Veldt Grass

Ehrharta erecta

Status:
Very serious environmental weed

Features: Vigorous, loosely tufted perennial bright green grass. Aggressive invader of native ground flora, especially in moister areas. Flowers and seeds all year round. Can produce seed within two to three months of germinating. Common in gardens. Tends to grow prostrate if regularly mown, or can scramble up through shrubs.

Dispersal: Seed is spread by wind, water, birds and rabbits.

Control:

Serrated Tussock

Nassella trichotoma

Status:
Weed of National Significance
NOXIOUS
Regionally controlled
Very serious environmental weed
Very serious pasture weed

Features: Dense tussock to 50cm with distinctively serrated leaves. (Feel fine serrations by running fingers down edges of leaves.) Green leaves during summer and yellow–green in winter. New growth is upright initially but weeps at maturity. Leaves are white at the base. Purplish, abundant open seed heads in summer.

Dispersal: Seeds are spread by wind and in contaminated soil, hay, basalt boulders used in landscaping and on machinery. Can be transported on the fur of animals or clothing.

Control:

Rat's-tail Fescues

Vulpia bromoides, Vulpia myuros

Status:
Environmental weed

Features: Fine, erect annual grasses between 1 – 20cm tall, often with red/purplish base and nodes. Flowerhead is very finely bristly (one sided in *Vulpia bromoides*), erect or slightly drooping. Plants germinate, flower and set seed very quickly in dry open areas. Numerous fine plants can form a dense mat.

Dispersal: Seeds spread by wind, water and slashing.

Similar local native plants: *Austrodanthonia* species (Wallaby–grasses).

Control:

Sweet Vernal-grass

Anthoxanthum odoratum

Status:
Very serious environmental weed
More vigorous in moist sites

Features: Tufted perennial grass to 60cm with a sickly medicinal smell, especially from the roots. Green flowerheads in bud that turn straw–coloured as seed drops. Aggressive invader of native ground flora especially on lower slopes and moist areas. Flowers from spring to summer.

Dispersal: Seeds are spread by wind and water. May also be transported on animals or clothing.

Control:

Yorkshire Fog

Holcus lanatus

Status:
Very serious environmental weed
Found in moist areas, drainage lines and lower slopes

Features:
Vigorous shallow-rooted perennial grass to 80cm with soft dense hairs, giving leaves a pale grey appearance. Flowerheads are reddish–purple before opening. Aggressive invader of native ground flora. Thrives in wet areas. Flowers from spring to summer.

Dispersal: Seeds are spread by wind and water. May also be transported on animals or clothing.

Control:

Capeweed

Arctotheca calendula

Status:
Very serious pasture weed
Found in overgrazed pastures and disturbed areas

Features: Annual and herbaceous. Flowers are yellow with a black centre. White hairs on upper and lower leaf surfaces. Mature plant grows up to 50cm in diameter. Leaves form a rosette at the base and are serrated and deeply lobed. Grows quickly to outcompete pasture. Does not establish as easily in well grassed pasture.

Dispersal: By wind and animals. Treatment with most herbicides is generally not as effective after rosette stage through autumn and winter. Prevent invasion and spread by avoiding overgrazing, soil compaction and bare soil.

Control: 

Cat's Ear

Hypochaeris radicata

Status:
Serious environmental weed
Abundant in all habitats, follows disturbance into bushland

Features: Tufted perennial with hairy leaves in basal rosette and upright, slightly branched, leafless flower stems. Yellow daisy flowers on 10 – 80cm branching flower stems in spring to summer.

Dispersal: Wind carries seed long distances.

Similar local native plants: *Solenogyne gunnii* (Hairy Solenogyne).

Similar weeds: *Taraxacum officinalis* (Dandelion), *Helminthotheca echioides* (Ox–Tongue), *Hypochoeris glabra* (Smooth Cats Ear).

Control: 

Common Centuary

Centaurium erythraea

Status:
Environmental weed

Features: Annual or biennial herb with a basal rosette of leaves. Clusters of pink flowers borne on erect stems up to 50cm high in summer. Common weed in disturbed areas and follows disturbance into good quality bushland.

Dispersal: Seed is spread a short distance by wind, and moved further by water and soil.

Control:

Paterson's Curse

Echium plantagineum

Status:
NOXIOUS
Regionally controlled
Serious pasture weed
Becoming more common in Manningham

Features: Erect, biennial herb to 1m, growing from a basal rosette of ovate leaves with distinct lateral veins, leaves lanceolate on erect stems. Flowers are bluish–purple and tubular with stamens protruding. Proliferates where soil is disturbed or overgrazed.

Dispersal: Seeds often brought in by hay, on machinery or by soil movement. Grows rapidly and outcompetes pasture.

Control:

Ragwort

Senecio jacobaea

Status:
NOXIOUS
Regionally controlled
Serious environmental weed

Features: Erect biennial or perennial herb. The plant forms a rosette then matures with erect stems. Deeply lobed, dark green leaves have an unpleasant smell when crushed. Bright yellow, daisy–like flowers at the end of a single stalk, from October to March. Can produce up to 25,000 seeds per plant.

Dispersal: Seed is dispersed by wind, water, animals, vehicles and clothing.

Similar local native plants: *Senecio* species (Fireweeds and Groundsels).

Control:

Ribwort

Plantago lanceolata

Status:
Environmental weed

Features: A perennial herb with dense terminal flower spikes, 1 – 7cm long, on tall stems. Basal rosette of leaves with five distinct parallel veins. Follows disturbance into good quality bushland.

Dispersal: Seed is spread a short distance by wind, and moved further by water and soil.

Similar local native plants: *Plantago* species (Plantains) whose stems are not angular.

Control:

Seaside Daisy

Erigeron karvinskianus

Status:
Environmental weed
Garden escape
Increasing in Manningham

Features: Sprawling, rhizomatous perennial herb to 40cm. Small white daisy flowers with yellow centres turn to deep pink as they age. Flowers for most of the year. Sparsely hairy leaves often lobed. Shape variable, usually narrow, ovate.

Dispersal: Seed spread by wind. Dumped garden waste can root from rhizomes.

Control:

Spear Thistle

Cirsium vulgare

Status:
NOXIOUS
Regionally controlled
Serious environmental weed
Very serious pasture weed

Features: Deep rooted biennial herb to 1.5m high. Seedlings germinate in autumn and spring, and form a rosette. Leaves are dark green above, paler below, coarse, deeply lobed and very prickly. One to several stems develop. Purple flowers in summer, followed by fluffy white seed heads.

Dispersal: Seed in hay, soil or, most commonly, by wind. Careful pasture management to prevent bare ground reduces infestation. Most effectively treated when rosettes are small, with selective herbicide or by digging out. Cut flower heads can ripen to seed and cut plants usually regrow.

Control:

St John's Wort

Hypericum perforatum

Status:
NOXIOUS
Regionally controlled
Very serious environmental weed
Very serious pasture weed
Common along roadsides but also a serious invader of bushland and pasture.

Features: Perennial herb to 80cm high with underground runners, erect reddish stems, leaves stalkless, narrower towards the base and with transparent dots (oil glands). Numerous yellow flowers in summer. Tiny seeds in golden brown capsules.

Dispersal: Seeds stick to animals and vehicles. Spread in contaminated hay.

Similar local native plants: *Hypericum gramineum* (Small St John's Wort).

Warning: Poisonous to stock

Control:

African Daisy

Osteospermum fruiticosum

Status:
Serious environmental weed
Garden escape

Features: Perennial herb/subshrub up to 60cm tall. Creeping stems root at nodes to rapidly cover large areas. Fleshy dark green leaves with several teeth. Showy white flowers with purple centres open during the day from late winter to late spring, and sporadically throughout the year.

Dispersal: Seed and creeping stems. Broken stems root easily from dumped garden waste.

Similar weeds: *Gazania linearis.*

Control:

Oxalis species

(three species below)

Status: Very serious environmental weeds. *Oxalis purpurea* is also a very serious pasture weed.

Dispersal: Bulbs and bulbils dispersed by water and birds, transported in contaminated soil.

Similar local native plants: *Oxalis* spp. Wood-sorrels.

Note: All emerge from underground in autumn and dieback in late spring.

Control:

Soursob

Oxalis pes–caprae

Features: Upright perennial to 30cm with clover–like leaves, often with brownish spots on top. Yellow trumpet-like flowers held above foliage, in winter to spring. Tiny pale bulbils can often be found at the base of the plants on stems held above the ground. Very common on roadsides and disturbed places.

Pale Wood-sorrel

Oxalis incarnata

Features: Similar to Soursob with paler foliage and pale pink flowers later in spring. More common in damp areas.

Large-flower Wood-sorrel

Oxalis purpurea

Features: Ground hugging leaves and large pink to purple flowers in late winter to spring. Leaves and flowers are much larger than the previous two species.

Blackberry

Rubus fruticosus species aggregate

Status:
Weed of National Significance
NOXIOUS
Regionally controlled
Very serious environmental weed
Very serious pasture weed
Most vigorous and dense in gullies, moist areas and lower slopes.

Features: An erect summer growing perennial, forming canes to 6m long. Semi-deciduous through autumn and winter. Flowers pink to white in December and January. Serrated ovate leaflets. Prickles on leaves and stems. Berries ripen from December to April, changing colour from green to red to black as they ripen. Major source of harbour for pest animals. Also important to some native fauna, so large scale removal should be carefully considered and staged over several years.

Dispersal: Reproduction from seed and root suckers via tip rooting. The berries are very attractive to birds and foxes.

Similar local native plants: *Rubus parvifolius* (Native Raspberry).

Similar weeds: *Rosa rubiginosa* (Briar Rose).

Control:

Boneseed

Chrysanthemoides monilifera subsp. *monilifera*

Status:
Weed of national significance
NOXIOUS
Regionally controlled
Very serious environmental weed

Features: An erect perennial shrub to 3m high. Dull green, paddle–shaped leaves, irregularly serrated edges with terminal tufts of cottony down. Bright yellow flowers from late winter to spring. Blackberries with hard seeds in summer.

Dispersal: Seeds spread by birds and foxes remain viable for many years because of their hard seed coats. Spreads into bush where it competes vigorously with native species. Mass germination may occur, especially after fire or disturbance.

Control:

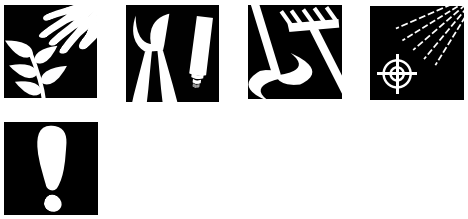
Brooms

(three species below)

Status:
NOXIOUS
Regionally controlled
Very serious environmental weed.

Dispersal: Ripe seeds are ejected forcibly from the pods. Seeds remain viable in the soil for many years because of their hard seed coats. Ants collect the seed and aid dispersal. Spread by roadworks and soil disturbance in affected areas. Mass germination may occur, especially after a fire or disturbance.

Control:



Cape (Montpellier) Broom

Genista monspessulana

Features: Erect perennial shrub, 2 – 3m high. Hairy trifoliate leaves, arranged alternately along branchlets and upper stems. Bright yellow pea flowers occur singularly or in clusters in spring. Flat silky seed pods.

Similar local native plants: *Goodia lotifolia* (Golden-tip).

English Broom

Cystisus scoparus

Features: Erect shrub, 2m high, with long dark green angular branches, lower leaves trifoliate. Large, yellow flowers, solitary or twin in the axis of small leaves in spring. Pod flat black.

Similar local native plants: *Daviesia leptophylla* (Slender Bitter-pea).

Flax-leafed Broom

Genista linifolia

Features: Erect woody shrub, light green leaves, smooth above and silky white below. Leaflets are small, narrow trifoliate, grey–green and more crowded toward the growing points. Clusters of bright yellow flowers are always terminal. Two to three seeds in a flattened, silky pod.

Gorse

Ulex europaeus

Status:
Weed of National Significance
NOXIOUS
Regionally controlled
Very serious environmental weed

Features: Dense spiny shrub to 3 – 4m high and wide. Mature branches are rough brown, more recent growth green and much branched. Leaves are spike–like. Bright yellow pea flowers occur in terminal clusters from July to January. Major source of harbour for pest animals.

Mass germination may occur, especially after fire or disturbance.

Dispersal: Seed.

Control:

Madeira Winter-cherry

Solanum pseudocapsicum

Status:
Very serious environmental weed
Found in moist gullies, streams and river banks

Features: Fast growing shrub to 1m. Pointed dark green leaves with a strong unpleasant odour. Small white flowers from spring to summer and bright orange–red berries in late summer.

Dispersal: Seeds spread along waterways and by foxes and birds.

Similar local native plants: *Solanum laciniatum* (Large Kangaroo Apple), *Solanum aviculare* (Kangaroo Apple).

Warning: The berries are poisonous to humans

Control:

Myrtle-leaf Milkwort

Polygala myrtifolia

Status:
Serious environmental weed
Garden escape
Increasing in Manningham

Features: Bushy shrub to 2m with small elliptic leaves and purple butterfly shaped flowers. Hard seeds germinate prolifically especially after fire and disturbance. Tolerates wide range of conditions.

Dispersal: Seed is spread by water, ants, birds, soil and dumped garden waste.

Similar Native Plants: *Indigofera australis* (Austral Indigo).

Note: Sterile hybrids are available.

Control:

Red-ink Weed

Phytolacca octandra

Status:
Serious environmental weed
Increasing in Manningham

Features: Small to medium, bushy, soft wooded shrub. Long, oval leaves with a pointed tip, rank smelling when crushed. Flowers are small and white, greenish or tinged red in a dense spike, followed by shiny purple/black berries. Stems often reddish.

Dispersal: Spread by birds and foxes. Mainly in disturbed sites, also invades bushland.

Warning: All plant parts are poisonous and cause skin irritations.

Control:

Spanish Heath

Erica lusitanica

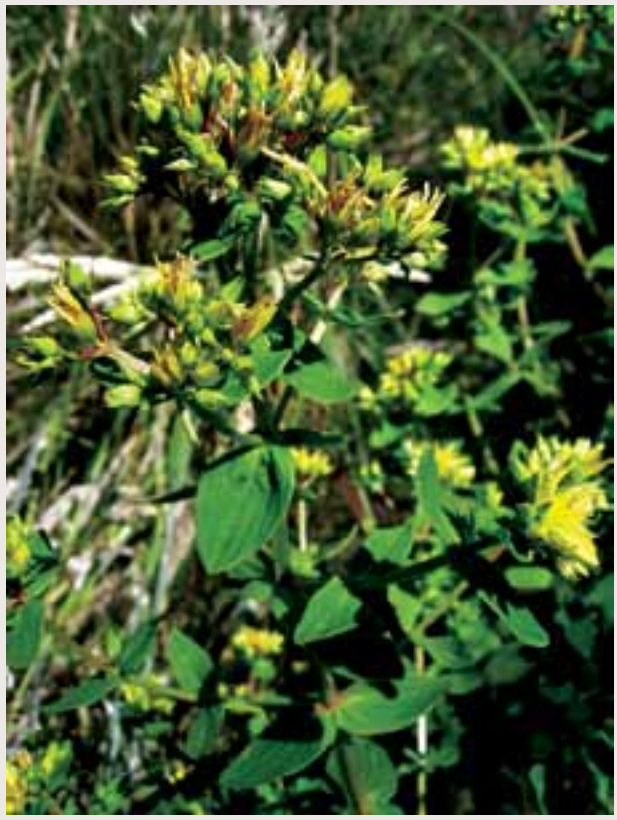
Status:
Very serious environmental weed
Found in moist sites, shaded slopes

Features: An erect shrub to 3m high. Small, fine hairless and crowded leaves. Numerous white flowers with pink–tinged buds. Anther lobes dark purple. Flowers in winter.

Dispersal: Small pepper–like seed spread by wind and dumping of plants containing seeds. Slashing encourages regrowth and suckering.

Similar local native plants: *Epacris impressa* (Common Heath), *Cassinia arcuata* (Drooping Cassinia), *Dillwynia cinerascens* (Grey Parrot-pea).

Control:



St Peter's Wort
(Square-stem St John's Wort)

Hypericum tetrapterum

Status:
NOXIOUS
Regionally prohibited
Very serious environmental weed
Found in moist sites, gullies and streams

Features: Erect herb or soft wooded subshrub to 1m with square stems. Broad ovate green leaves with distinctive veins. Leaf bases hug the stems. Clusters of yellow flowers with brown capsule fruit.

Dispersal: By seed and runners along drainage lines and waterways.

Warning: Poisonous to stock.

Control:

Sweet Briar

Rosa rubiginosa

Status:
NOXIOUS
Regionally controlled
Serious environmental weed

Features: Deciduous shrub to 3m, similar to a rose bush. One to many woody stems arise from a woody rootstock. Stems and branches with numerous down-curved thorns. Divided green leaves with five to seven leaflets. White to pink petalled flowers followed by large red 'hips' from summer to autumn.

Dispersal: Birds, foxes and water.

Similar local native plants: *Rubus parvifolius* (Native Raspberry).

Similar weed: *Rubus fruticosus* (Blackberry)

Control:

Tutsan

Hypericum androsaemum

Status:
NOXIOUS
Regionally controlled
Serious environmental weed
Found on moist slopes and in gullies and streams

Features: Spreading soft wooded shrub to 1m, often with arching reddish branches. Soft, stalkless, light green, ovate, opposite leaves, often with a curry smell when crushed. Stems reddish brown. Yellow flowers late spring to summer, followed by red berries later, turning black.

Dispersal: Birds and foxes eat the berries. Seed spreads in water along drainage lines and creeks.

Similar local native plants: *Goodenia ovata* (Hop Goodenia).

Control:

Cherry Plum

Prunus cerasifera

Status:
Serious environmental weed
Garden escape
Found in moist gullies, streams and river banks

Features: Small deciduous tree up to 5m, oval shaped green or purple leaves, pink or white flowers in early spring, red or yellow fruit in the summer. Competes with indigenous vegetation.

Dispersal: Spread into bush by birds and foxes, supporting the spread of introduced fauna. Foxes and birds eat the fruit.

Control:

Cotoneaster

Cotoneaster species

Status:
Very serious environmental weed
Garden escape

Features: Evergreen shrubs or trees. Green oval leaves with pale undersides. There are two invasive species locally. Leaf-size varies, but other features are very similar. Small white flowers in spring, followed by abundant red fruits.

Dispersal: Seed spread by birds and foxes.

Control:

Hawthorn

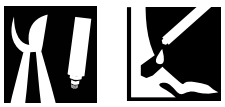
Crataegus monogyna

Status:
NOXIOUS
Regionally controlled
Very serious environmental weed
Garden escape
Found in gullies, moist slopes and streams

Features: Erect, deciduous, perennial shrub to 7m tree. Thorny branches, with small deeply lobed and serrated, bright green leaves. White, or sometimes pink, flowers in spring followed by red berries in autumn.

Dispersal: Seeds spread by water, birds, to a lesser extent foxes.

Control:



Irish Strawberry Tree

Arbutus unedo

Status:
Serious environmental weed
Garden escape

Features: Small tree to 6m with dark green leaves, finely serrated margins and reddish stems. Small white urn–shaped flowers from autumn to winter, followed by red strawberry like fruits.

Dispersal: Seed spread mainly by birds.

Control:

Tree Privet

Ligustrum lucidum

Status:
Serious environmental weed
Garden escape
Found in moist slopes, gullies and streams

Features: Evergreen shrubs or trees, with green oval leaves and small white flowers in spring, followed by prolific red fruits turning black.

Dispersal: Fruit eaten by birds and foxes, spread into gardens and bush.

Control:

Increasing in Manningham

Radiata Pine

Pinus radiata

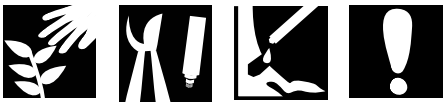
Status:
Serious environmental weed
Garden escape

Features: A tall, evergreen, softwood tree to 30m. Dark green needle like leaves in threes. The large, seed bearing cones at the end of branches take two to three years to mature.

Dispersal: Seeds dispersed by wind some distance from the parent tree all year round and by birds.

Similar local native plants: *Exocarpos* species (Ballarts).

Control:



Sweet Pittosporum

Pittosporum undulatum

Status:
Very serious environmental weed
Garden escape

Features: Small tree to 10m. Naturally occurring in the east of Victoria, but a very serious weed in this region. Masses of white scented flowers in spring which develop into orange berries in autumn. Shiny, smooth and glossy leaves with wavy mirgins and yellow–green to dark green in colour. Produce a distinctive odour when crushed.

Dispersal: Sticky seeds. Mainly blackbirds, also other birds and foxes.

Control:

Willow Hakea

Hakea salicifolia

Status:
Environmental weed
Garden escape

Features: Fast growing shrub to 5m, clusters of creamy white flowers in late winter to spring, hard nut–like fruit. Dull yellowish to dark green long leaves on brown stem.

Dispersal: Seed is mainly dispersed by wind. Also contaminated mulch.

Control:

Wattles

(seven species below)

Status: These wattle species are serious environmental weeds that compete with native vegetation for water, space, light and nutrients. Garden escapes of these and other *Acacia* species are increasing in Manningham.

Dispersal: Ants, birds and seed dispersal. Seeds remain viable in the soil for many years because of their hard seed coats. Mass germination occurs especially after fire or soil disturbance.

Similar local natives: There are 17 local indigenous wattles and some are similar to some of these weeds. All non local wattles have the potential to become serious environmental weeds.

Control:

Cedar Wattle

Acacia elata

Features: Medium tree to 15m. Large glossy dark green with fern like leaves. Pale yellow ball flowers in summer.

Cootamunda Wattle

Acacia baileyana

Features: Small tree 5 – 8m tall with distinctive feathery blue–grey foliage and abundant sprays of golden flowers in winter. Colonises local native bushland, particularly on drier sites.

Early Black Wattle

Acacia decurrens

Features: Medium tree to 10m with bright green fern–like leaves and stems with angular ridges. Sprays of bright yellow ball flowers occur from late winter to spring.

Similar native species: *Acacia mearnsii* (Black Wattle), *Acacia dealbata* (Silver Wattle).

Flinders Range Wattle

Acacia iteaphylla

Features: Sparse shrub 2 – 3m. Thin, long greyish green foliage. Short sprays of pale yellow ball flowers in winter.

Sallow Wattle

Acacia longifolia

Features: Bushy shrub to small tree 4 – 7m. Long flat green foliage. Yellow spikes of flowers in late winter.

Sticky Wattle

Acacia howittii

Features: Small rounded tree to 8m. Dark green pointed, oval, sticky foliage on drooping branches. Pale yellow single ball flowers in spring.

White Sallow Wattle

Acacia floribunda

Features: Small tree to 8m. Long, fine foliage on drooping branches. Yellow spike flowers in early spring.

The following plants, in addition to those already discussed, cause problems in this region.

COMMON NAME	BOTANICAL NAME
Lilies and Bulbs	
Belladonna Lily	*Amaryllis belladonna*
Gladiolus	*Gladiolus undulatus*
Harlequin Flower	*Sparaxis* species
Ixia	*Ixia* species
Lined Tritonia	*Tritonia gladialaris*
Rosy Watsonia	*Watsonia borbonica*
Yellow Water Iris	*Iris pseudacorus*
Climbers and Creepers	
Asparagus Fern	*Asparagus scandens*
Banana Passionfruit	*Passiflora tarminiana*
Bindweed	*Convolvulus arvensis*
Carolina Jessamine	*Gelsemium sempervirens*
Common Dipogon	*Dipogon lignosus*
Morning Glory	*Ipomaea indica*
Moth Vine	*Araujia sericifera*
Pampas Lily of the Valley	*Salpichroa origanifolia*
Maderia Vine	*Andredera cordifolia*
Rambling Dock	*Acetosa sagittata*
Vetch	*Vinca* species
Grasses and Sedges	
Cocksfoot	*Dactylis glomerata*
Couch Grass	*Cynodon dactylon*
Delicate Hair–grass	*Aira elegantissima*
Greater Reed mace	*Typha latifolia*
Jointed Rush	*Juncus articulatus*
Lesser Quaking–grass	*Briza minor*
Reed Canary–grass	*Phalaris arundinacea*
Spiny Rush	*Juncus acutus*
Toowoomba Canary–grass	*Phalaris aquatica*
Herbs and Groundcovers	
Blue Water–speedwell	*Veronica anagallis–aquatica*
Caper Spurge	*Euphorbia lathyrus*
Forget–me–not	*Myosotis* species
Fumitory	*Fumaria* species
Great Mullein	*Verbascum thapsus*

COMMON NAME	BOTANICAL NAME
Heart–leaf Ice plant	*Aptenia cordifolia*
Hemlock	*Conium maculatum*
Horehound	*Marrubium vulgare*
Mouse–eared Chickweed	*Cerastium glomeratum*
Parrots Feather	*Myriophyllum aquaticum*
Pennyroyal	*Mentha pulegium*
Three–part Crassula	*Crassula alata*
Vietnamese Mint	*Persicaria odorata*
White Clover	*Trifolium repens*
Violets	*Viola* species
Shrubs	
Cape Honeyflower	*Melianthus major*
Cape Wattle	*Paraserianthes lophantha*
Cestrum	*Cestrum elegans*
Euryops	*Euryops abrotanifolius*
Honey Myrtle	*Melaleuca hypericifolia*
Italian Buckthorn	*Rhamnus alatemus*
Karamu	*Coprosma robusta*
Laurystinus	*Viburnum tinus*
Mirror Bush	*Coprosma repens*
Orange Firethorn	*Pyracantha angustifolia*
Privet	*Ligustrum* species
Tree Heath	*Erica arborea*
Tree Lucerne	*Chamaecytisus palmensis*
Wild Tree Tobacco	*Solanum mauritianum*
Trees	
Ash	*Fraxinus* species
Basket Willow	*Salix fragilis*
Black Locust	*Robinia pseudoacacia*
Box–elder Maple	*Acer negundo*
Cherry Laurel	*Prunus laurocerasus*
Golden Wreath Wattle	*Acacia saligna*
Lilly Pilly	*Syzygium smithii*
Maritime Pine	*Pinus pinaster*
Spotted Gum	*Corymbia maculata*
Sugar Gum	*Eucalyptus cladocalyx*

Glossary

Alternate	(of leaves) arising one by one, first from one side of the stem and then the other
Annual	a plant that completes its lifecycle in less than one year
Anther	the pollen bearing part of a stamen
Axil	the upper angle between two dissimilar parts, e.g. that formed by a leaf in relation to the stem
Axillary	of buds or flowers arising in an axil
Awn	a bristly appendage on a seed
Biennial	a plant which dies in its second year after germination
Bulbil	a small bulb, produced either from the base of the parent bulb or budding from the aerial stem or inflorescence
Compound	consisting of two or more parts
Corm	a bulb-like organ, usually growing underground but without the scales
Deciduous	losing all of its leaves each year and growing a fresh set later
Florets	the smallest unit of a compound flower
Glabrous	smooth, without hairs
Herb	a plant that produces a fleshy rather than woody stem
Inflorescence	flowering structure
Lanceolate	lance–shaped, narrow and tapering at each end, especially the apex
Lobes	the rounded projecting part of a leaf, petal or sepal
Node	the place on a stem marked by the attachment of a leaf or bracts
Opposite	(of leaves) arising in pairs, one opposite the other on either side of the stem
Ovate	egg shaped and attached by the broad end
Perennial	living for more than two years
Petiole	leaf stalk
Prostrate	a plant of low growing, ground hugging habit
Rhizome	an underground stem
Rosette	a cluster of leaves growing in crowded circles from a common centre or crown (usually at or close to the ground)
Serrated	toothed with sharp, forward pointing teeth
Sessile	without a stalk
Stamen	the male part of a flower producing pollen, consisting of an anther and a filament
Stolon	a basal stem growing above or just below the ground surface and rooting at intervals
Terminal	at the end
Trifoliate	a leaf with three leaflets
Tuberoid	the swollen end of an underground root
Umbel	an inflorescence in which all the stems arise at the same point and the flowers lie at the same level, more or less umbrella shaped
Whorl	an arrangement of three or more parts at the same level around an axis

Common Name Index

Botanical Name Index

Weed control should be undertaken as a part of an ongoing plan. Manningham's Land Management Guide and Property Management Planning Course can help you develop your plan.

Visit www.manningham.vic.gov.au/live/environment for more information.

For advice about Weed Identification and Control:

Department of Primary Industries	136 186
Manningham City Council Environmental Officer	9840 9333

Local indigenous (not for profit) plant nurseries can provide advice and assistance on suitable replacement plants. Please choose the nursery closest to where you live to ensure you use local provenance indigenous species.

Candlebark Nursery, Croydon	9729 5274
CRISP Nursery, Ringwood	9879 3911
FOWSP Nursery, Warrandyte	9844 2659
Greenlink Box Hill Inc. (Whitehorse Council)	9262 6333
Manningham City Council Nursery	9846 0500

See *Native Splendour,* Manningham's indigenous gardening guide, for some suggestions.

Photographs:	Melissa King
	Anthony Owen
	Josh Revell
	RG and FJ Richardson www.weedinfo.com.au
	Cathy Willis
	Helen Moss – from the *Plants of Melbourne's Outer East* CD Rom (produced by Baber Enterprises Pty Ltd).
Symbols:	Aaron Down, student at Donvale Christian College

Useful environmental pest control resources

www.weeds.org.au/weedident.htm
www.dpi.vic.gov.au
www.dse.vic.gov.au
www.sydneyweeds.org.au/weeds.php
www.google.com.au
http://new.dpi.vic.gov.au/agriculture
www.weedinfo.com.au
www.ppwcma.vic.gov.au/publications/publications.aspx
www.rbg.vic.gov.au/gardening_info/weed_strategy#Resource
www.wsvic.org.au
www.iewf.org/weedid/index_by_reserve.htm
www.candlebark.org.au
www.weeds.gov.au

Books

Blood, Kate (2001) *Environmental Weeds – A Field Guide to S.E Australia*
Carr, G. Yugovic, J. and Robinson, K. (1992) *Environmental Weed Invasions in Victoria*
Lamp, C. and Collet, F (1989) *Field Guide to Weeds in Australia*, Inkata Press, Sydney
Muyt, Adam (2001) *Bush Invaders of South–eastern Australia*, RG and FJ Richardson
Parsons, W.T. and Cuthbertson, E.G.(1992) *Noxious Weeds of Australia*, Inkata Press
Richardson, F.J., Richardson, R.G., Shepherd R.C.H (2006) *Weeds of the South–East*

Weed Alert

New and Emerging Weeds
1800 084 881

Herbicides

http://www.apvma.gov.au/index.html
Pest Genie.com or Msds.com
DPI Chemical Information line 9210 9379

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