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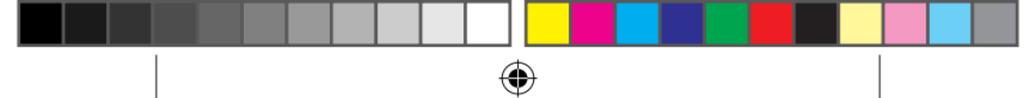


Grass ID Guide

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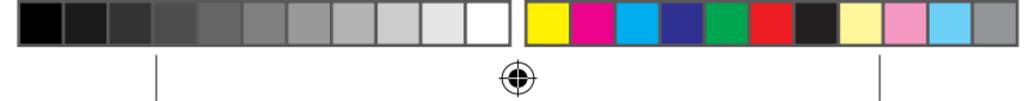
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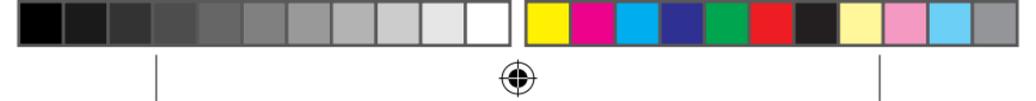
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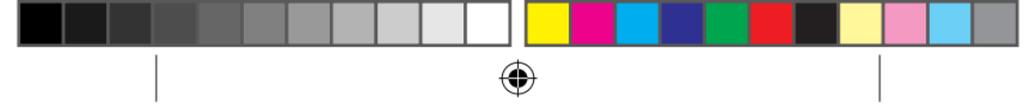
Syngenta Grass Identification Guide

How to use this guide

The easy to use Syngenta Grass Identification Guide, produced in conjunction with specialists from the Sports Turf Research Institute (STRI), provides a quick and reliable means to accurately assess the main turf grass species.

The Syngenta Grass ID Guide is uniquely designed to help identify grass species in closely mown turf. Following a route of characteristic physiological features you will be able to determine the grass species present, and make a visual assessment of the sward composition. The Grass ID Decision Tree on pages 8 & 9 tracks through a logical sequence of characteristics to quickly and accurately determine the species.





The Guide includes a set of novel, easy to remember visual icons (pages 6 & 7) of the key features to look out for with each species.

Designed in a format to keep with you during all turf assessments, identifying and recording grass species composition at different times of the year will give valuable practice and experience, as well as building a better picture and awareness of turf composition. Record patches of Ryegrass or other weed grass species throughout the season, to help prioritise treatment areas.



Grass ID icons

General features to look for:

Is the emerging **leaf rolled** or **folded** in the shoot – when you twist the stem between your thumb and finger does it ‘judder’ (indicating the leaf is folded) or does it roll smoothly like spaghetti (indicating the leaf is rolled)?

Is the **leaf blade ribbed**?

Is the **underside of the leaf shiny**?

Is the **leaf blade hairy**?

Is the **leaf spiky and needle-like**?

Does the **leaf have tramlines**?

Is there any **colouration at the base of the stem**?

Are there any **auricles** - clasp like projections (like the pointed tips of a shirt collar) where the leaf blade joins the leaf sheath?

Are there any **ligules** - a pale membrane (like the back section of a shirt collar) where the leaf blade joins the leaf sheath?

Inflorescence – is it a **panicle or spike**?

Are there any **stolons** (above ground creeping stems) or **rhizomes** (underground creeping stems)?



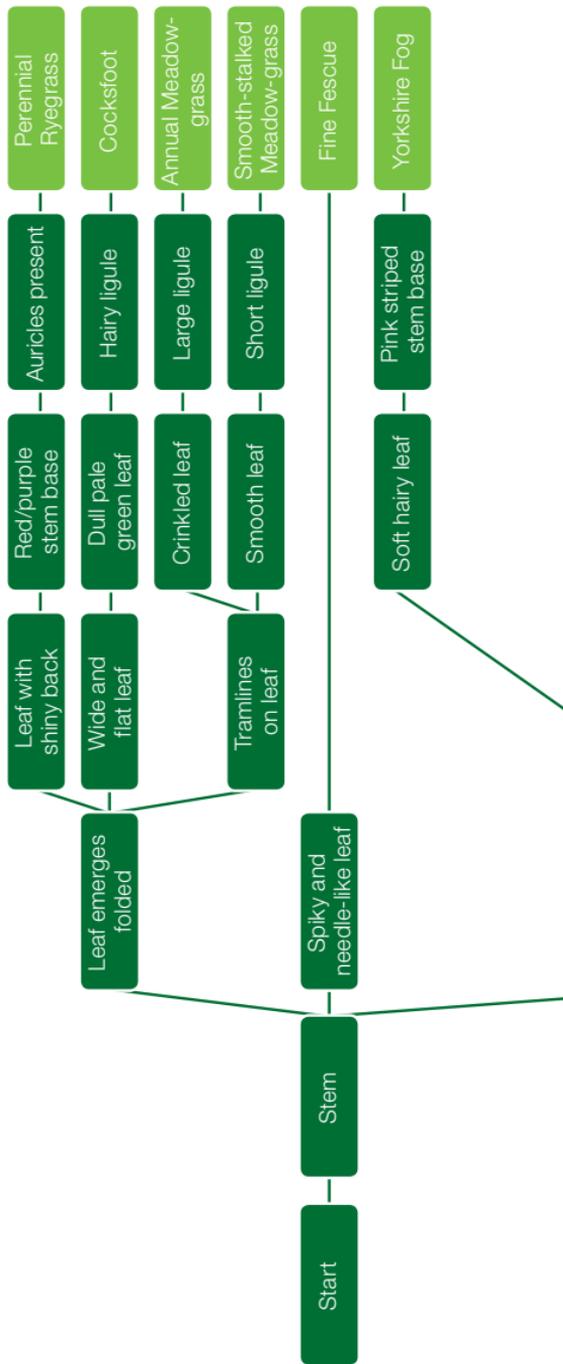
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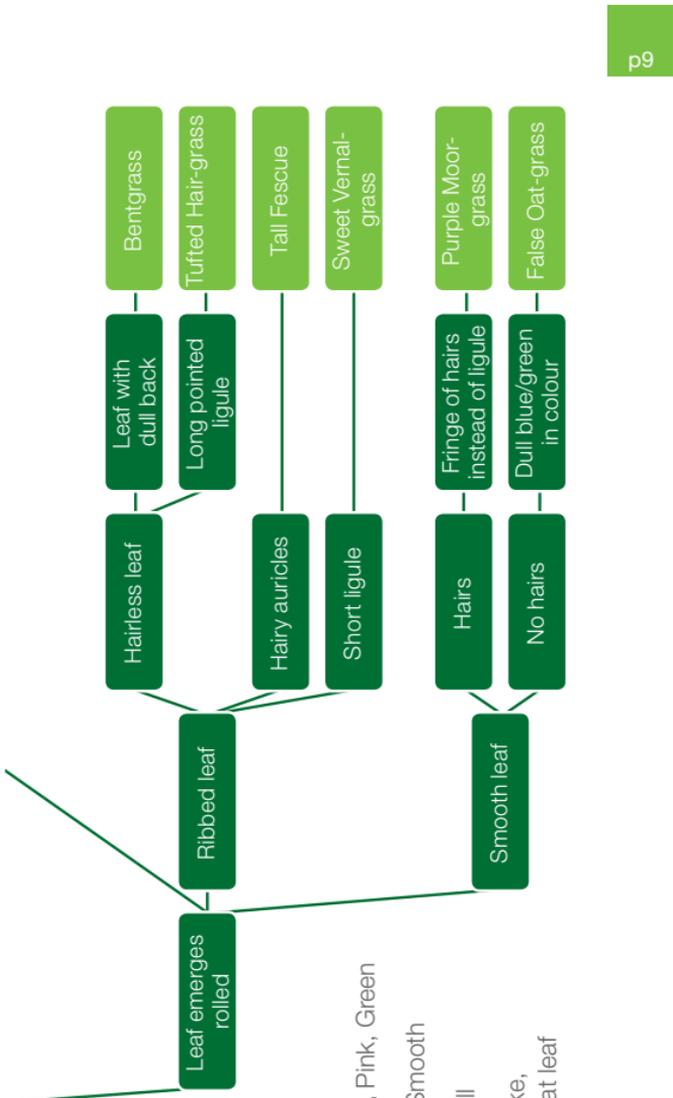
What icons to look out for



Grass ID Decision Tree

p8





p9

Key ID features which work at relevant heights of cut:

- **Stem base colour:** Red/purple, Pink, Green
- **Upper leaf surfaces:** Ribbed, Smooth
- **Lower leaf surfaces:** Shiny, Dull
- **Leaf:** Hairy, Spiky and needle-like, Tramines, Crinkled, Wide and flat leaf
- **Ligule:** Some situations
- **Auricle:** Some situations



PERENNIAL RYEGRASS

Lolium perenne



Key identifiers

- Youngest leaf folded in shoot
- Leaves shiny on underside **1**
- Upper surface of leaf very strongly ribbed
- Red stem base **2**
- Auricles present
- Inflorescence – Spike **3**
- Susceptible to Leaf Spot



Can be confused with:

Bentgrass (page 15) – With Ryegrass look for the youngest leaf folded (not rolled) and a shiny leaf underside, compared to dull Bentgrass leaves. The red stem base is characteristic of Ryegrass

YORKSHIRE FOG

Holcus lanatus



Key identifiers

- Youngest leaf rolled in shoot
- Soft grey/green hairy leaves **1**
- Pink/purple stripes on leaf sheath, especially at the stem base **2**
- Obvious ligule **3**
- Inflorescence – Panicle
- Susceptible to Crown Rust



Can be confused with:

Bentgrass (page 15) – look for dense hairs and pink stripy stem base on Yorkshire Fog

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PURPLE MOOR-GRASS*Molinia caerulea***Key identifiers**

- Youngest leaf rolled in shoot
- Upper leaf smooth with no ribs
- Leaves hairy **1**
- Ligule present but a line of hairs rather than a membrane **2**
- Inflorescence – Panicle but may be dense resembling a spike
- Mostly found in wet moorland, heaths, commons and fens

**Can be confused with:**

Yorkshire Fog (page 11) – look for the ligule in Yorkshire Fog; Purple Moor-grass has just short hairs instead

FINE FESCUE

Festuca species



Key identifiers

- Spiky, needle-like leaves **1**
- Leaf sheath tubular
- Inflorescence – Panicle **2**
- Slender Creeping Red Fescue – rhizomes present, very fine leaves
- Chewings Fescue – no rhizomes, very fine leaves
- Strong Creeping Red Fescue – rhizomes present, coarser leaves
- Susceptible to Dollar Spot and Red Thread



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ANNUAL MEADOW-GRASS*Poa annua***Key identifiers**

- Youngest leaf folded in shoot
- Tramlines on leaf
- Older leaves often 'crinkled in centre' **1**
- Large ligule
- Inflorescence – Panicle. Often in flower in mown turf, even at very short heights of cut **2**
- Susceptible to Fusarium Patch and Anthracnose

**Can be confused with:**

Smooth-stalked Meadow-grass (page 19) – look for large ligule, paler colour and leaf softness in Annual Meadow-grass

BENTGRASS*Agrostis capillaris* (Browntop/Colonial)**Key identifiers**

- Youngest leaf rolled in shoot
- Upper leaf blade ribbed **1**
- Leaves hairless
- Leaves dull on underside
- Inflorescence – Panicle
- Spread by stolons or rhizomes **2**
- Susceptible to Fusarium Patch and Take-all Patch

**Can be confused with:**

Yorkshire Fog (page 11) – look for hairy leaves and red/purple at stem base of Yorkshire Fog, which are not present in Bentgrass

Perennial Ryegrass (page 10) – look for the shiny leaf of Ryegrass compared to the dull leaf of Bentgrass

TUFTED HAIR-GRASS

Deschampsia caespitosa



Key identifiers

- Youngest leaf rolled in the shoot
- Leaves strongly ribbed and rough, tapering to a pointed tip **1**
- Hairless leaf
- Ligule present, very long and pointed **2**
- Inflorescence – Panicle



Can be confused with:

Tall Fescue (page 17) - Tufted Hair-grass does not have the hairy auricles of Tall Fescue



TALL FESCUE *Festuca arundinacea*



Key identifiers

- Youngest leaf rolled in shoot
- Leaves strongly ribbed **1**
- Older leaves wide and flat, tapering to a point
- Hairy auricles **2**
- Ligule present
- Inflorescence – Panicle



Can be confused with:

Perennial Ryegrass (page 10) – look for hairs on auricles and ligule of Tall Fescue

Tufted Hair-grass (page 16) – look for auricles, which are not present on Tufted Hair-grass



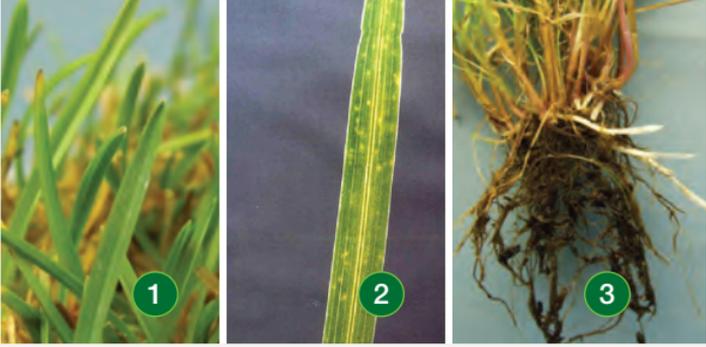
SWEET VERNAL-GRASS*Anthoxanthum odoratum***Key identifiers**

- Youngest leaf rolled in shoot
- Ribbed leaf
- Leaves are loosely hairy **1**
- Ligule present
- Inflorescence – Spike **2**
- Flowers early in spring
- When leaves are crushed they have a very strong 'mown grass' smell



SMOOTH-STALKED MEADOW-GRASS

Poa pratensis



Key identifiers

- Youngest leaf folded in shoot
- Tramlines visible on either side of the leaf blade mid-rib
- Smooth leaf
- Boat shaped leaf tip
- Short ligule
- Inflorescence - Panicle
- Rhizomes present



Can be confused with:

Annual Meadow-grass (page 14) – look for small ligule, stiff dark green leaves and the presence of rhizomes not seen in Annual Meadow-grass

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FALSE OAT-GRASS

Arrhenatherum elatius



Key identifiers

- Youngest leaf rolled in shoot
- Smooth, dull blue-green leaves
- Very coarse grass
- Ligule present **1**
- Inflorescence – Panicle **2**
- Onion couch sub-species of *Arrhenatherum elatius* has bulbous swellings at the base (resembling small onions)
- Very difficult grass to eradicate



COCKSFOOT

Dactylis glomerata



Key identifiers

- Youngest leaf folded in shoot **1**
- Leaves wide and flat
- Flat stem
- Dull, pale green leaf **2**
- Hairy ligule **3**
- Inflorescence – Panicle



Can be confused with:

Annual Meadow-grass (page 14) - Look for the wide, flat of Cocksfoot compared to the soft crinkled leaves of Annual Meadow-grass

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