Glossary of terms

Morphological terms	
Anther	The male (pollen-producing) part of the flower.
Awn	The bristles on the wheat ear, extending from the **florets**. Awn length varies with variety; most bread wheat varieties have no awns.
Coleoptile	Protective sheath covering and protecting the young shoot tip.
Flag leaf	The last leaf to emerge before the spike; it sits directly below the spike. Like every leaf it is composed of the leaf sheath (the part wrapped around the stem) and the leaf blade.
Floret	Each individual flower (containing anthers and stigma). Several **florets** (usually three) form a single **spikelet**.
Ovary	The immature un-pollinated grain precursor. It consists of the embryo surrounded by endosperm.
Peduncle	The stalk carrying the spike. Only a small part of the **peduncle** is exposed, while most of it is hidden underneath layers of leaf sheaths.
Radicle	The first part of the growing seedling to emerge from the seed coat, later becoming root tissue.
Spike	The wheat ear. A spike usually consists of ~20 **spikelets**.
Spikelet	The basic unit of a wheat flower. Each spikelet consists of at least three **florets**.
Stigma	The female (pollen-receptor) part of the flower sitting on top of the ovary.
Tiller	A shoot originating from the shoot meristem at the base of the plant.
Developmental timing terms	
Anthesis	Time that the anthers become mature and **pollination** takes place. Anthesis begins first in the **florets** at the centre of the spike and then moves outwards towards the base and the tip of the spike.
Emasculation	Removal of the **anthers** (male parts) from the flower to prevent self-**pollination**.
Heading	The growth stage when the ear pushes out from the **flag leaf sheath**. We define a plot as "**heading**" when 75% of the spike is visible in 75% of the plants have.
Imbibition	The act of the seed absorbing water prior to germination. Seeds become fully metabolically active again after imbibition.
Pollination	Pollen deposition onto the stigma; this leads to fertilisation of the ovum and thus to a new seed.
Senescence	Aging of the plant; the process begins when the new grain starts to form; the colour of the plant changes from green to gold/yellow.
Vernalisation	Exposure of the plant to cold temperatures to induce flowering. This mimics the winter season and serves as an environmental cue for plants to flower; essential for winter wheat varieties.

The two figures below illustrate the specific vocabulary related to the wheat plant and can be found in the Introduction to wheat section. More detailed pictures of the stigma and anthers are displayed in the How to cross wheat section.