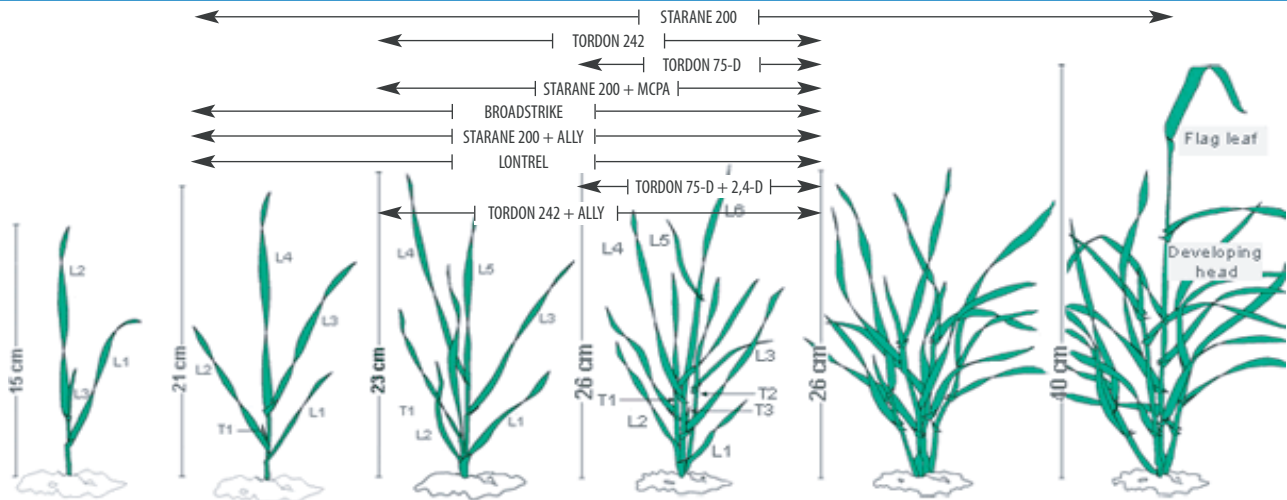


# CROP GROWTH CHART – WHEAT



CROP GROWTH STAGE	2-LEAF STAGE	START OF TILLERING	TILLERING STAGE	FULLY TILLERED STAGE	START OF JOINTING	EARLY BOOT STAGE
	Two leaves (L) have unfolded, third leaf present, yet to fully expand.	First tiller (T1) appears from between a lower leaf and the main shoot. Usually 3 or 4 leaves are on the main tiller.	Tillers come from the base where leaves join the stem and continue forming, usually until there are 5 leaves on the main shoot. Secondary roots developing.	Usually no more tillers form after the very young head starts forming in the main tiller. Tillering completed when first node detected at base of main stem.	Jointing or node formation starts at the end of tillering. Small swellings – joints – form at the bottom of the main tiller. Heads continue developing and can be seen by dissecting a stem.	The last leaf to form – the flag leaf – appears on top of the extended stem. The developing head can be felt as a swelling in the stem.
ZADOK'S DECIMAL CODE	2 leaves unfolded (Z12).	4 leaves unfolded (Z14). Main shoot and 1 tiller (Z21).	5 leaves on main shoot or stem (Z15). Main shoot and 1 tiller (Z21).	6 leaves on the main shoot or stem (Z16). Main shoot and three tillers (Z23).	First node formed at base of main tiller (Z31).	Z35–Z45.
HERBICIDE SPRAYING STAGE	Suitable stage for spraying many herbicides, but too early for 3-leaf stage.	Suitable stage for spraying at the 3–4-leaf stage. Too early for the 5-leaf stage of application.	Suitable for spraying many herbicides at the 5-leaf tillering stage.	Many herbicides can be sprayed up to the end of tillering.		

- There is no difference between spring wheat varieties sown on the same day in the rate of appearance of new leaves.
- At the early boot stage, the last flowering part – the pollen – is being formed. This occurs earlier in barley than in wheat or triticale.