Lentils germinate with the cotyledon remaining below ground (hypogeal germination). The epicotyl (part of the stem above cotyledons) grows toward soil surface and pushes the main shoot (plumule) above ground. As the shoot grows towards the soil surface, growing points (nodes) become evident. The first two nodes with lentils develop below or at soil surface and the small leaves associated at these nodes are called scale leaves. Regrowth is possible from buds at the base of these scale leaves.

The first true leaf is produced at the third node position. Leaves of lentils develop in an alternate arrangement with one leaf per node and small stipules at the base of each leaf.

Individual leaves are compound and made up of two or more pairs of leaflets. The first two leaves are bifoliate (one pair of leaflets) followed by multifoliolate leaves (more than one pair of leaflets).

Growth is rapid during vegetative stages and lentil seedlings can produce new nodes every four to five days. Vigorously growing lentil plants with adequate space will produce two or more primary shoots from the base of the stem. Lentil varieties can show large differences in their branching patterns with some more erect and others more spreading.

Staging at the Vegetative Stage

When considering pesticide applications, make sure you know which stage the products are referring to. Some guides refer to true leaf stage, node stage, or above-ground node stage.

Staging can be difficult and sometimes the true leaves or scale leaves have been removed due to environmental damage, insect pressure, or for some other reason. When determining crop stage, include nodes where the leaves or leaflets are fully opened or unfolded. Youngest or newly emerging leaves or leaflets are not included in staging unless completely open. Closely inspect the stem and identify potential growing points or nodes. Not only can regrowth occur from these locations but regrowth can also occur from the seed. In the case of regrowth, expect delays in maturity.
LENTIL GROWTH STAGES DIAGRAM

1) Root emergence
2) Shoot emergence
3) 2 leaf stage (4 node stage)
4) 5 leaf stage (7 node stage)