

Pulse Agronomy Network~ Partnership in Industry

May 26, 2003- All Pulse Bulletin

1. Growth stage and herbicide applications:

(Randy Retzlaff, Syngenta)

Identifying the correct stage of a pulse crop is very important to ensure maximum performance when applying herbicides. The staging can be sometimes confusing:

- Various publications present the growth stage of a pulse crop either based on nodes or true leaves or a combination of both.
- Herbicide recommendations are then made based on number of nodes on the crop, number of true leaves or by vine length.

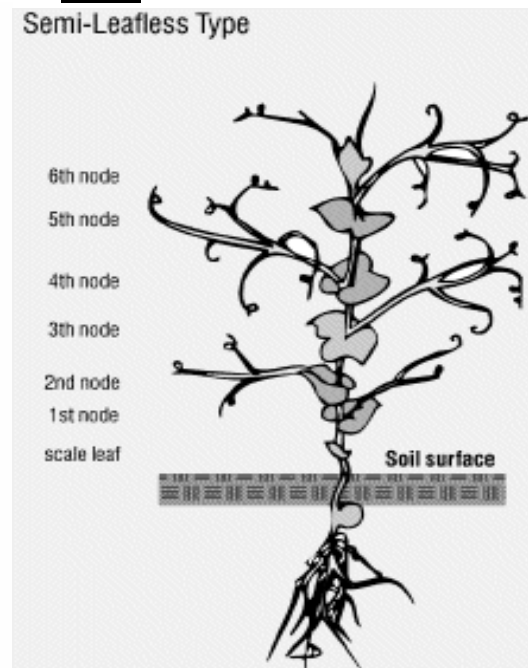
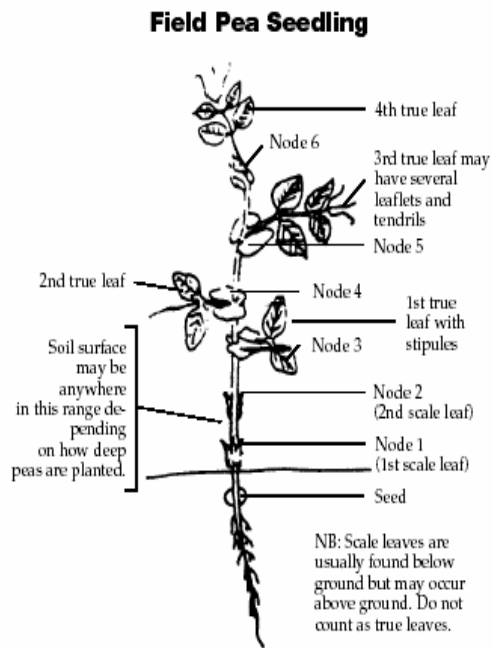
By definition:

- Peas have 2 scale leaves (1st and 2nd) that are relatively small and seldom emerge completely from the ground. They are also called the 1st and 2nd nodes. Scale leaves are **NOT** considered true leaves.
- The **first true leaf**, located at the third node position, usually consists of 1 pair of leaflets and a tendrils.

One must be sure to consult the actual label of the herbicide to ensure proper application for example - Odyssey: various publications state to apply to peas up to and including the 6-node stage, but the label states up to and including the 6th true leaf stage. The 6th true leaf stage may actually be at the 8-node stage if you count the 1st and 2nd scale leaf as nodes. Examples from provincial pesticide guides:

Sask. Ag & Food

AAFRD



2. Crop scouting peas at emergence **(Emile deMilliano, ACE Specialist-Agricore United)**

Now is a great time to evaluate pea crops for emergence and to identify any potential problems that occurred with germination. Where to start? Get a good overview of the crop from the edge of the field. Take into account field variation due to moisture, topography and soil type differences.

Do a plant count. Ideally we're looking for 7-8 plants/ft², but stands of 3-5 will still generate a reasonable crop provided weed control is taken care of.

Look for variance in emergence. Then carefully examine individual seedlings especially those that do not appear normal or seeds that have not germinated or emerged. Too often, we miss the opportunity to do this properly. If they did not emerge, ask yourself these questions... Was it seeded too deep? Was the seed treated? Could mechanical damage or pre-harvest glyphosate damage caused the problem?

Visual checks:

-Mechanical damage is normally identified as split or cracked seed where the root and shoot may be detached.

-Pre-harvest damage shows stunted roots with few secondary roots.

-Could diseases like seedling blights, seed rots or foot rot be the cause of the problem? Dig up plants and look for abnormal discoloration of roots... Fungus like *pythium* (cool wet conditions), *rhizoctonia* (high soil temperature), or *fusarium* (high soil temp, moist soil, low pH) may be the "root" of the cause.

Announcements

Low Disturbance Direct Seeding Equipment Demonstration Day

Tuesday, June 10, 2003

Olds College Farm

Start Time 1:00 pm

Attached document is also posted at <http://www.reducedtillage.ca/oldsdemoday.pdf>