

## **GROWTH and DEVELOPMENTAL STAGES of LIMA BEAN**

The following examples illustrate developmental stages of lima bean (*Phaseolus lunatus*), and should be applicable to all growing environments and divergent cultivars. The baby lima bean is grown as an annual warm-season crop.

No specific descriptors are currently available to distinguish the different growth stages of lima bean; therefore the following descriptors are proposed by the Legume ipmPIPE (H. F. Schwartz, facilitator) to promote communications between legume specialists, stakeholders and insurance industry representatives. The following descriptors are based upon those used for Common Bean.

### **Vegetative Growth Stages**

Plants of baby lima cultivars may be bush (determinate) or semi-viny to viny (indeterminate). They produce many trifoliolate leaves that are pointed, smooth and shiny.

VE – seedling emergence

VC – cotyledons visible at node 1; unifoliolate leaves unfolded at the next node

V1 – the first trifoliolate leaf has unfolded from the next node

V2 – the second trifoliolate leaf has unfolded from the next node

V3 – the third trifoliolate leaf has unfolded from the next node

V4 – the fourth trifoliolate leaf has unfolded from the next node

Vn – the nth trifoliolate leaf has unfolded from the next node

### **Reproductive Growth Stages**

Three flowers appear at each node along the raceme. Flat pods form, and contain two to four seeds. The self-pollinated plants are usually harvested while pods and seeds are still green.

R1 – early bloom, one open flower on the plant

R2 – full bloom, 50% to 100% of flowers are open

R3 – first pod has reached maximum length (early pod set)

R4 – 50% of pods have reached maximum length (mid pod set)

R5 – one pod with fully developed seeds (early seed fill)

R6 – 50% of pods with fully developed seeds (mid seed fill)

### **Physiological Maturity**

R7 – one pod has changed from green to mature color (physiological maturity)

R8 – 80% of pods have changed to mature color (harvest maturity)

More information on lima bean and its characteristics are available from resources including: *Principles of Field Crop Production, 3<sup>rd</sup> Ed.* – J.H. Martin et al. 1976. Macmillan Publ. Co. *Successful Lima Bean Production in Delaware* – E. Kee et al., 2004. Univ. of Delaware Ext. Bull. VF-6