A collection of *les* mutants

--Kazic, T

The production of lesions by lesion mimic mutants offers a rich system for understanding complex phenotypes and developing algorithms to infer their underlying network of biochemical reactions and physiological and developmental events. Several other notes in this issue of the Newsletter describe our progress in photographic methods, recording, and scripts to generate tags for plant management and inventory. But the most fundamental step we have taken so far is to collect *les* mutants and begin their introgression into Mo20W, W23, and M14.

Table 1 shows the current mutants as of the 2007 field season and the list of those I am certain I do not have. The phenotype of the *Les15* mutants in the collection is uncertain; I would appreciate additional instances of this gene. I would like to collect these and any other mutants that exhibit differential health of patches of leaf tissue at different times in development, or whose expression is affected by genetic background, weather, or latitude. As time permits, I will begin their introgression as well.

Table 1. Current and needed genes.

Current Genes	Missing Genes
Les1	*Les5*
Les2	*Les14*
Les3	*Les16*
Les4	*Les20*
Les6	*Les21*
Les7	
Les8	
Les9	
Les10	
Les11	
Les12	
Les13	
Les15	
Les17	
Les18	
Les19	
les23	
lls1	

I am grateful to Gerry Neuffer for giving us lines and sage advice, and to Marty Sachs and Guri Johal for lines and thoughtful discussion. My debt to the entire maize community at Missouri, especially Ed Coe, Karen Cone, Georgia Davis, and Mary Schaeffer, is profound.