

PLSC 731: Paper Review

Whitt et al - Genetic diversity and selection in the maize starch pathway

1. Describe the levels of diversity in maize relative to other grasses?
2. Has selection been noted at many loci in maize? What loci have been shown to undergo selection?
3. What is the value of diversity studies to study selection?
4. What is the role of starch metabolism in corn kernel development?
5. Why is it suspected that selection affected diversity in starch metabolism genes?
6. What genes were studied in this paper? What are the phenotypes of mutants in these genes? What aspect of these genes was studied in this paper?
7. What populations were studied? What sequence strategy was used for each gene?
8. What statistics were used to study selection in this study?
9. What is the major observation relative to diversity in this study?
10. What is the major observation relative to selection in this study?
11. When did selection occur for different genes studied in his paper?
12. What suggests that pasting quality was under selection?
13. What evidence suggests two independent mutations generated sweet corn?