PLSC 731: Paper Review

Salamini: Genetics and Geography of Wild Cereal Domestication in the Near East
Questions (reference pages in parentheses)

1. Describe the events associated with the appearance of agriculture? the consequences of the appearance of agriculture? (429)

2. What is the definition of domestication here? (429)

3. What morphological differences are associated with cereal domestication? (430)

4. What questions can be answered using molecular genetic techniques to study domestication? (430)

5. What species are associated with the three polyploid levels of wheat? (430-431)

6. What is the taxonomic and morphological differences with einkorn wheat? (431)

7. Where does it appear the einkorn wheat was domesticated? (431-432)

8. What is the underlying genetic basis for brittle vs. tough rachis in einkorn wheat? (432)

9. What is the taxonomic history of emmer/tetraploid wheat? (433)

10. What type of wheat is cultivated tetraploid wheat most related? Is their a single or multiple origin of this wheat type? (433)

11. What is the genetic basis of seed size in tetraploid wheat? (433)

12. What is the taxomonic history of hexaploid wheat? Where did this event most likely occur? (434)

13. Describe the Q gene system and how it affects the s free-threshing phenotype in hexaploid wheat? (434-436)

14. How does the Tg gene affect the free-threshing phenotype in hexaploid wheat? (436)

15. What are the four important points relative to the genetics of free-threshing phenotype? (436)

16. What is the taxonomic relationship between wild/cultivated barley? (438)

17. Describe two genetic systems that control domestication traits in barley? (438)

18. General, where is it expected that barley was domesticated? (438)

19. Describe compete theories regarding the conditions under which domestication occurred. (439, 440)