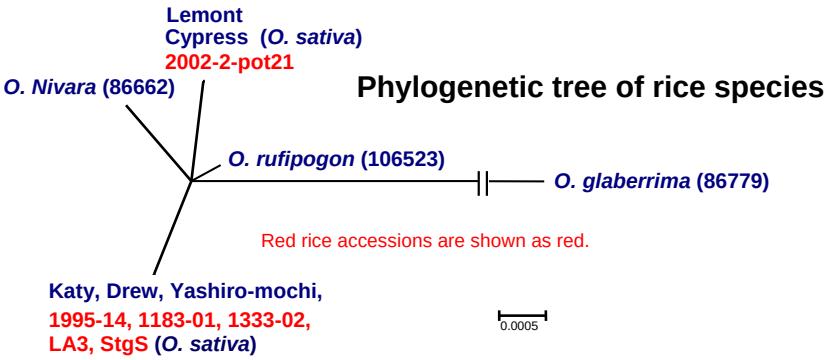
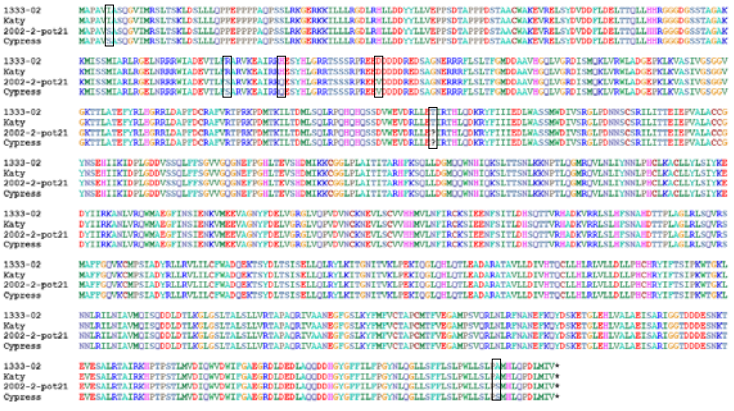
Evolution Genomics of Weedy Rice-right wing

Website: http://www.ars.usda.gov/news/events

Blast resistance gene *Pi-ta* found in red rice



Pi-ta protein sequence



1333-02 and Katy: resistance Pi-ta, 2002-02-pot21 and Cypress: susceptible Pi-ta

Domestication?

Weedy rice was introduced into US from Asia, where weedy hybrids of the cultivated species and the wild species occur. These weedy strains then took hold in US soils and began contaminating the US cultivated species.

OR

De-domestication?

Weed is incidentally selected for in feral crop volunteers. For example unharvested seeds that can give rise to unmanaged plants in crop field. The selection process favoring the weedy version of the crop that out-competes the crop itself .