**Supplementary Material**

A screenshot of a game

Description automatically generated with medium confidence

**Figure S1:** Principal component analyses (PCs 1 and 2 shown), at the chromosome arm level, for each population. The color indicates collection year. Shapes indicate the samples “type”, spring and fall collections (collected at the beginning and end of the growing season), front (collected prior to a frost event), or time series (indicated bi-weekly collections). Samples are: Akaa (Finland), Broggingen (Germany), Charlottesville (VA), Cross Plains (NY), Linvilla (PA), Munich (Germany), Odessa (Ukraine), Yesiloz (Turkey).

**Figure S2:**

**Simulation Results**