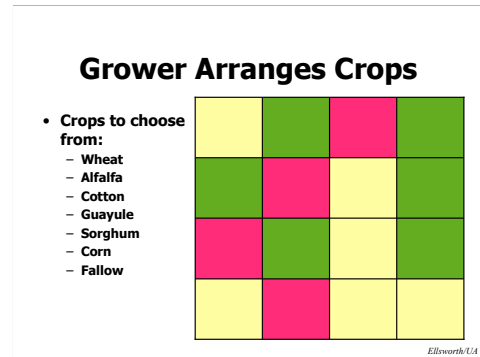


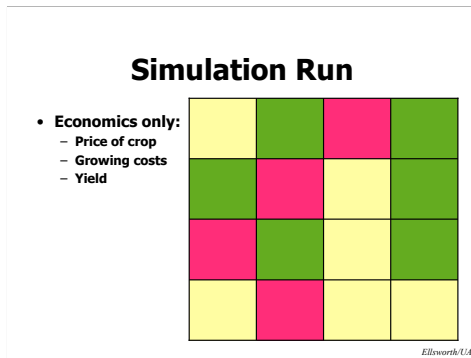
Game Training Simulation Discussion

Using a 16-laptop mobile computer lab, we will be able to allow growers to plant a virtual farm, perhaps a 16 field (4x4 grid) universe.

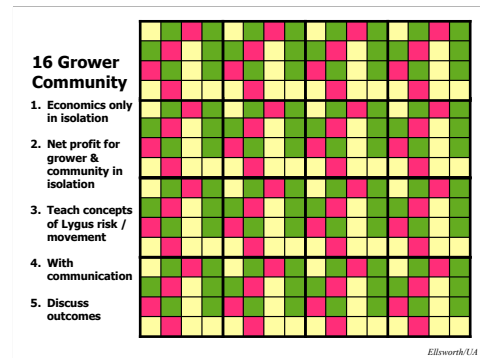
An initial run would be to just see what they elect to plant based on whatever criteria they wish to follow, presumably to make as much money as possible.



For display and discussion purposes today, red fields are sources of Lygus, green are sinks, and yellow are neutral or non-hosts.



The first run will be based solely on the operational economics based on historical data that is available for most crops. Russ Tronstad (UA-Ag Economist) will assist with this.



The grower will be embedded with 15 of his neighbors also managing a 16-field farm, all who are trying to maximize profits. The output will include net profit for that grower as well as for the entire community but in without direct communication among them. We will then break from the game and present all the wonderful information we have learned from the RAMP about Lygus movement, risk, and management. Then with the ability to "visit" with their neighbors and talk about their plans, they will re-plant their virtual farms and we will examine the outcomes to see if individuals perform better and if the community does better. If not, why not? If so, why?

Simulation Output

No Cooperation

Grower	Economics only	Low	Medium	High
Brown	\$120	\$100	\$75	\$60
Smith	\$55	\$50	\$43	\$38
Anderson	\$290	\$223	\$110	\$(45)
...	\$21	\$17	\$12	\$0
Community	\$90	\$74	\$24	\$(20)

Elkworth/LA

The look could be anything, but this is the sort of feedback the grower would get after each run. I.e., how they did and how each of the other 15 growers did economically, and how the community did overall in net returns. In this view you see what would happen if economics only are considered and Lygus are NOT in the system. Then you can see what would happen if it was a low, medium or high "year" for Lygus. All without cooperation or communication among growers.

Simulation Output

With Communication ~ Cooperation

Grower	Economics only	Low	Medium	High
Brown	\$120	\$120	\$110	\$110
Smith	\$70	\$70	\$60	\$60
Anderson	\$290	\$290	\$275	\$270
...	\$65	\$65	\$60	\$58
Community	\$125	\$120	\$112	\$110

Elkworth/LA

After they learn about the concepts of Lygus sources and sinks, and about spatial dynamics and risk/management, they will have the opportunity to talk with their neighbors in their community, and see if the outcomes are different.