

2020 Iowa Academy of Science symposium: Transition to a clean agriculture.

1. It seems that we have many reports about how Iowa's modern industrial agriculture is not working correctly to clean up its pollution. But, we don't have many reports about transitioning to an Iowa agriculture that would result in Iowa becoming a carbon sink, an offset carbon trading bank, a water cleaning sponge, a pollinator – wildlife – and aquatic habitat, all the while growing small grains, vegetables, and fruits for people food along with providing crops for manufacturing goods which would revitalize rural Iowa, and would be an agricultural system that would begin to replenish our soils.

That is what this symposium would be about.

2. Even if we transitioned slowly away from industrial row crop corn and beans, by mandating and paying for 10% of all row crop fields to have the native prairie STRIPS system, and mandating that most Iowa county ditches were planted to native prairie, we would get rid of approximately 95% of current soil erosion, nitrogen pollution, and phosphorus pollution coming from row crop fields today.

3. If Iowa planted native prairie as an agricultural crop, we would be a carbon sink, we could be a carbon offset bank for trading carbon offsets, and our farm environment would become a water cleaning sponge helping to reduce flooding and providing habitat for pollinators – wildlife – and aquatic species.

4. Hemp would be similar to native prairie in that it is a cover crop with deep roots. But hemp can also be used for thousands of food and manufacturing products that can help revitalize rural Iowa's small communities since hemp is a bulk commodity that would need to be processed locally.

5. Small grains, vegetables, fruits, Wes Jackson's perennial polyculture grains, and other people food crops and cropping systems could become part of an agriculture which looks to benignly, in terms of pollution, feed Iowa, the Midwest, and the US instead of the current polluting industrial agricultural products mainly grown for the export market.

6. The world now produces enough food through grains to feed double our current population. By encouraging eating lower on the food chain and raising meat animals only for the US, we would no longer need the confinements and feedlots that are polluting Iowa's air, water, and soils, and negatively affecting our human health.

Bob Watson