

Craig Merrill

[Description of the value chain:]

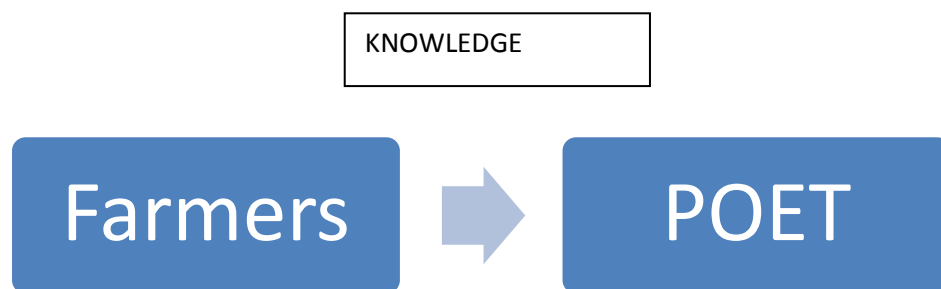
1. Contract acres with farmers
2. Harvest acres leave residue in a window for baler to be able to pickup
3. After bales are harvested and removed to pile site, the field will have a striped look to it. (We have a 8 row corn field). Each stripe is 20 ft apart.
4. We then disk the field to incorporate the fertilizer that has been applied along with the residue that is left after baling.
5. Throughout the late fall/winter and early spring, the residue will start to breakdown.
6. In the spring, we use a field mulchen and work the field cross-wise. This will take the remaining residue and spread it out evenly through those stripes that were left when the baler removed the cob residue from the combine.
7. This process spreads the residue evenly. The removal of the bales and then the spreading of the remaining residue allows us to grow corn on corn acres. Corn on corn acres is where residue management is very important.

Most important positive: community

Most important negative: producer timeliness and investment

Darrick Young – economic development

[The participant was not fully aware of the value chain and started asking the other participants around the table. The participant provided a brief diagram, and later an explanation of how he understand his place in the value chain]



ECDC – economic development

- 1- Jobs
 - a. Employees, people moving to town with good income
 - b. More money in the community
 - c. Local taxes, retail, property taxes
 - d. Local stores, businesses, restaurants flourish
- 2- Production of ethanol

- a. Income to farmers
 - b. Ethanol (fuel use)
 - c. Ash/potash for fertilizer as an aftermath
- 3- Biomass
 - a. Leaves crop for sale

Positives – locally or globally?

- Economic impact to farmers
- Economic impact to the region (area)
- Production of ethanol (fuel)
- Saving the world's food source by not using corn
- Reputation of Emmetsburg (local area)
- **MOST positive:** Emmetsburg is first to start the research for the **future** [emphasis added by participant] of new biofuel production. (The future may be astronomical)* [participant added a star on the back to elaborate]

* Poet started here.

1) Bankers

2) Seed dealers

3) Farmer 25% of grain residue

Farmer to ISU – stover bales

Get cost to replace potash, after meetings changed.

(lack of research)

POET ahead of ISU in research.

POET changed marketing. POET wanted to *properly* [emphasis added by participant] inform the farmer (producer). Staying corn based keeps farmer NOT changing their crops. A switch to switch grass or sweet potatoes alters their crop revenue source. Bales were an easy collection from a current crop.

Can switchgrass produce a higher profit? Switchgrass would have to produce many bales. No fertilizer or chemicals to purchase.

Emmetsburg farmers starting trend to change to organic farming (no chemicals, no fertilizer) growing more acres yearly.

No soy beans in the 1930's, waited to grow until there was a market. Do we have to create the market first?

Biomass can be fed to livestock, which in turn produces fertilizer (manure).

Early stages, lack of knowledge, experience. Had to purchase equipment (balers).

Bales backed up on farmers storage, many bales kept for long time. Bales started to <decompose>.

Conditions have to be right to bale, time constraints.

Tillage help up by baling.

Bale storage.

Big Oil fight ethanol with degrading adverts.

Negatives

- 1- Early growing pains (bale storage) (no balers) mostly worked thru
 - 2- Removal of mass from fields (nutrients, potash)
 - 3- Big Oil companies and (negative) mis-information spread about biofuels. Big battle from oil companies.
 - 4- Transportation is an issue still
 - 5- **Most negative** Education of the masses
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Jed Skogeroe

[describes the value chain]

Utility → banker → seed savers → producer → baler → trucking → processor → equipment sales

- Processor: value from by-products
- Seed selection: harvest practice, stover collection practice, how it can be delivered, corn priority, bales service stover, how to get more bushels and bales, net return \$10- \$15
- Baler: motivator increase tonnage per acre travelled
- Ash: potash fertilizer value potassium
- Transportation
- Farmer: time saver labor saver

Positives:

- **Most positive:** community
 - Creates good jobs
 - Generates property taxes
 - Residue on roads
- (RINS [not sure what the participant wrote here])

Negatives:

- Carbon footprint
- **Most negative** Their value proposition – loss soil fertilizer
- Equipment maintained and downtime
- Process development
- Labor
- Stakers, transporters
- Processes: ash dirt, rocks, netwrap
- Soil
- Cost of entry
- Twine
- Policy