Key Factors

1. Lower than expected domestic use
2. Excess capacity
3. Low margins

Excess Capacity

The industry expected increased ethanol demand resulting from
- enforcement of federal (RFS) mandate of 15 billion conventional biofuel (corn-ethanol) gallons
- stable export numbers

Consequently, the industry expanded (new plants and plant expansions) from 15 billion gallons in 2014 to 16.5 billion gallons in 2019
Small Refinery Waivers

The Renewable Fuel Standard allows for waivers to be issued to small refineries (<75,000 barrels per day) if the policy would cause extreme hardship.

The number and volume of these waivers have dramatically increased during the Trump administration.

Excess Capacity

D6 RINS

D6 RIN prices can be used to determine if the policy is binding, that is when RIN prices are high, the policy is in effect as there are high costs to conform with the law.
Exports

US ethanol exports have been surprisingly strong in recent years, despite a strong dollar and the loss of the Chinese market due to tariffs imposed early in the trade war.

There is a concerted effort from the agriculture and ethanol industries to build US ethanol export markets currently underway.

Crush

Excess capacity has led to a period of low prices driving margins into the red for many refineries.

More than a dozen refineries have shutdown in the last year.
Octane Economics

Ethanol’s primary use in the United States is as a fuel additive, not a fuel.

It is a lower cost, cleaner, higher octane choice than petroleum-based alternatives (aromatics and MTBE).

Octane Economics

The EPA now allows year-round use of 15 percent ethanol blends, which is being marketed as ‘Unleaded 88’.

This has led to a slight uptick in ethanol sales and provides an opportunity for growth.

With current engine designs ethanol above 10 percent is a fuel.

The North Dakota Corn Council has a program to support the implementation of E15 across the state.
Fuel Economics

Outlook

Relatively bleak.
Too many refineries, too little demand.
Late summer shutdowns have helped margins slightly.
No expectation that the 15 billion gallon mandate will be enforced at that level
E15 will take years to grow
Exports are the lone bright spot and a great opportunity, but it will take years to build new markets.

Disclaimer

Marijuana is a federally controlled, Schedule I drug. It is a federal crime to grow, possess, sell, or consume.

I discuss marijuana only to delineate it from hemp, which is now legal to produce and sell, and not in anyway to endorse or support or educate on marijuana.
Cannabis

Cannabis is an annual dioecious, flowering herb. Female plants are desired for cannabinoid production. Varieties have been bred for cannabinoid production, fiber, and oil.

Uses

Cannabinoids - TetraHydroCannabinol (THC) – psychotropic, recreational drug, unproven medical use
Cannabidiol (CBD) – unproven remedy for anxiety, depression
Fiber: rope, clothing, animal bedding/sorbent, carpet
Oilseed: food, feed, lotion/cosmetics, industrial

The New Farm Bill

The Agricultural Improvement Act legalized commercial production, transport, and sale of hemp and its component parts. Expanded rules for highly regulated production for research purposes under the 2014 Farm Bill.

Federal Policy - Definitions matter

Marijuana is defined as with THC greater than .3%
Hemp is cannabis with THC less than .3%
Marijuana is a schedule I drug. It has no medical use and is likely to be abused.

Any plant with THC above .3% is considered marijuana as are component parts.

The federal government (DEA) does not actively enforce small scale violations. This has led to confusion.

Legal for medicinal purposes in 33 states, 10 states for recreational use.

The FDA & CBD

Responsible for control and supervision of food safety, dietary supplements, and prescription and over the counter drugs.

CBD has not identified to be Generally Recognized As Safe (GRAS). So you cannot add it to food.

Hemp seeds (hemp hearts) have been identified as GRAS.

The FDA & CBD

CBD (Epidiolex) has been approved as schedule 5 drug for the treatment of seizures, that is it is a prescription drug.

Dietary supplements may not make medical claims.

There is concern about the actual composition of CBD products being sold.

FDA & CBD

The now former FDA administrator issued a statement on December 20 regarding CBD. It reasserted FDA’s responsibility to regulate.

He also stated that FDA will address any activities that put consumers at risk.
The Role of States

The Farm Bill allows states and tribes to establish and enforce their own regulations for the hemp production, as long as they align with federal standards (which have not yet been released) and are approved by USDA.

Production in states/regions without a plan will have to abide by a national USDA rule.

North Dakota has had laws allowing production of hemp since 2001, research production since 2014, and commercial production this year.

North Dakota Process

Accept applications. Background check.

Spot checks of fields and parts.
THC>.3% is destroyed.

Concerns

Loss of crop due to THC content.

Seed.
Plant in situ.
Harvested plant material.
Processed plant material.

No crop insurance currently, although it is now allowed and is being developed. Farmers will be able to use whole farm revenue protection insurance for risk protection in 2020.
Concerns continued

The market for hemp and hemp products is immature.

There are many small, inexperienced processors in the space, especially in the CBD market. Farmers should strongly evaluate counter party risk.

Many do not understand economics, agribusiness, or retailing – including the ability of farmers to supply massive quantities of material – eliminating profits.

Legal and Financial Risk

As marijuana is a schedule I drug, financing marijuana is not allowed by the federal government (viewed as money laundering.

There is justified concern that some CBD operations will have crops that exceed that .3% threshold, which makes banking challenging. (there is little risk for fiber and oilseed varieties).

The SAFE Act which would allow providing marijuana businesses access to financial services passed the house in late September.

Concerns continued

Hemp marketing for CBD, feed, and fiber is primarily under contract, although there are spot transactions for CBD and hempseed.

Farmers need contracts/contact with marketers or processors.

Contract clauses may force farmers to be accountable for risk – production risk, offtake risk. Terms for acceptance and payment should be given considerable detail.

Federal Hemp Regulations

The Agricultural Marketing Service of the USDA has drafted hemp policies for the federal government.

These are currently being reviewed by the White House and should be issued in November.
Northern Hemp Summit

You can learn more about hemp including policy, production, processing, markets, insurance, finance, and regulation at the Northern Hemp Summit being held November 19 and 20 in Bismarck

Visit northernhempsummit.org to learn more and register