2021 Hemp Market Outlook

Seth Boone | VP of Business Development,
PanXchange, Inc.

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Agenda

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  • Macro trends

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  • Hot Topics
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• Supplemental Opportunities
• Planting Decisions
• Closing notes & Conclusion

• Q&A
Speaker Background

• Background in physical commodities
  • Production Ag background in West Texas
  • Cattle Empire- Risk Manager and Merchandiser
  • INTL FCSTONE (STONEX)- Risk Management Consultant (broker)
  • JBS SA- Domestic/Export Trader & Feed Mill Manager

Strengthening underlying markets to build robust derivative markets
PanXchange: At a Glance

• PanXchange is a market structure solution firm.
  • Founded in 2011
  • Headquartered in Denver, Colorado
  • Live markets: East Africa Agriculture Products, Upstream Oil and Gas, US Industrial Hemp

• We bring years of commodity experience to developing and nascent markets to enhance transparency, industry development, and supply chain efficiency.
PanXchange: US Industrial Hemp

• **Market Analysis:**
  • **Spot Price Indices**
    • Biomass: Colorado, Oregon, Kentucky, Northeast Region, Great Plains Region
    • Refined Products: Winterized Crude Oil, Full Spectrum Distillate, Broad Spectrum Distillate, CBD Isolate
    • Industrial: True Hemp, Hurds, Grain, Semi-processed fibers
  • **Objective Industry Analysis**
    • Domestic and International Legislation
    • Proprietary and Public Data
    • Emerging market trends and opportunities
      • Cannabinoid and Industrial markets

• **Trading Platform:**
  • Aggregates vetted firms in one central location
  • Provides reliable spot pricing data
  • Market Standardization
Macro Trends for Hemp

• COVID19 Recovery
  • Brick & mortar
  • Economic recovery

• Demand for Sustainability
  • Biodegradable plastics
  • Reduced environmental footprint
  • Carbon management
  • Circular economies

• Marijuana Legalization
  • Inevitable?
  • Effects of cannabis & cannabinoid regulation?
Industrial Applications - Hot Topics

• **Sustainability Demand**
  • Reduced carbon footprint
    • Reducing emissions
    • Incentivising sequestration
  • Bioplastics
  • Less impactful products
    • hemp paper/textiles

• **Repatriating American Hemp**
  • Small and large firms alike working to develop US infrastructure
  • Still many years to go, but we are closer than you would think for some sectors to grow significantly
Industrial Applications - Market Developments

• General shift in attention towards industrial
  • CBD demand requires less than 5000 acres!!!
  • CBD prices unattractive
  • Volume trade for industrial hemp feedstocks increasing
    • Hurd for plastics, bedding, building materials, absorbents
    • Short fiber for plastics
    • Fiber for paper/pulp
  • Long fiber & Grain still in innovation phase
    • Long fiber still project based, but people are close to producing scaleable feedstocks
    • Grain limited to food and niche applications until regulations and economics develop
Industrial Applications - Potential Opportunities

• Industrial Growers Must be Risk Averse
  • Consider opportunity costs
  • Negotiate sales before committing to grow
    • Biggest complaint from industrial processors is they cannot find steady supply

• Carbon Credits
  • A fiber purposed hemp crop can sequester 11,000 lbs of carbon
  • When not if
Industrial Applications- Projections

- **2021 will be the year of transition to industrial**
  - Industrial acres will surpass Cannabinoid in 2021
  - Biggest challenge for processors is finding steady supply
  - Imports will stay strong but decline as US develops

- **A demand driving sector(s) will emerge**
  - Paper, plastics, textiles, building materials?
  - Will be necessary for other applications like feed to price in
Cannabinoid Applications - Hot Topics

• Delta 8
  • Potentially largest source of demand over past 6 months
  • Safety concerns
  • Will the Feds step in?
  • Potential repercussions

• HEMP act
  • Will 1% really help farmers
  • Benefits for R&D grows

• Hemp Banking

• Marijuana Legalization
  • Friend or foe for hemp?
  • Comes down to how regulatory administration is structured. Combined or separate regulations for cannabis as a whole.
Cannabinoid Applications- Market Developments

• **Oversupply still prevalent**
  - Liquidated products still suppressing regions like CO, OR, KY.
  - 150 million pounds of excess biomass from 2019 alone, and 53 million from 2020.
  - Wide variance in quality (processors are skeptical)

• **Delta 8 has flushed significant volumes of material**
  - Is it enough? Per numbers above, the market would need to absorb over 1 million KG of Delta 8
    - The caveat is the true oversupply of VIABLE material.
    - Will the federal government hamper Delta 8? Probably.

• **Exports**
  - EU demand rising, but true data hard to grasp with current export codes.

• **2021 Planted Acres**
  - US demand only requires 1650-3200 acres total with current yields and processor efficiencies.
  - Cut that in half if the THC cap is raised to 1%.

• **Prices**
  - Still meandering at the current low range.
    - Biomass: $0.05-$0.30 per point.
    - Premiums starting to emerge regionally for quality material as buyers sift through supplies.
      - Specifically outside of CO, OR, & KY.
Cannabinoid Applications- Potential Opportunities

• **CBD specific**
  • Limited would be optimistic
  • Must be risk averse. Only plant if sales are arranged, or have an equally sufficient outlet.

• **Minor Cannabinoids**
  • CBG, CBN and other minors are still demanding premiums.
  • Acreage demand is small
    • Heavily encourage sales to be arranged before committing production.

• **Delta 8**
  • Very risky to say the least.
  • If pursued, pursue it ethically.
Cannabinoid Applications - Projections

• Prices will recover, but….
  • Prices will make a modest recovery prior to harvest as buyers search for viable material
  • Too much general interest in hemp to believe acres suggest rationing demand
  • Buyers will play hand to mouth and bide time till harvest

• Delta 8 will face tighter restrictions
  • States will continue to crack down on Delta 8
  • A federal agency might crack down as well.
  • Major legislation unlikely as legalization/decriminalization remains a hot topic in Congress

• Strong exports will continue
Supplemental Opportunities

• Carbon Credits
  • Rapidly emerging
  • Large demand from companies wanting to improve ESG scorecard
  • Casts and availability to grower will become more accessible
  • Do homework before choosing. Make sure credits are marketable.

• Find a niche and focus on your strengths
  • The healthiest survivors of the price crash have been the entities that focussed on strengths and efficiency
Planting Decisions

• Be risk averse
  • Plant only if you have sales negotiated with a reputable buyer
  • Weigh against alternatives if able. Principal crops are at the highest level since the ethanol boom.

• Know your region
  • Hemp is a very regional market, especially for industrial applications
  • Weigh your closest and best options and tailor your crop accordingly

• Know your buyers specs and beat them
Conclusion & Closing Notes

• 2021 will be the year of transition to industrial applications.

• Cannabinoid prices are due to recover with Delta 8 volumes that are moving.

• Planted acres will determine the extent of rallies.

• Carbon credits are coming. Expect many more sustainability programs to follow.

• Weigh hemp planting decisions conservatively.
Q&A
Thank you!

Seth Boone | VP Business Development, PanXchange, Inc.

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