

Progress in the Commercial Production of American Elderberry



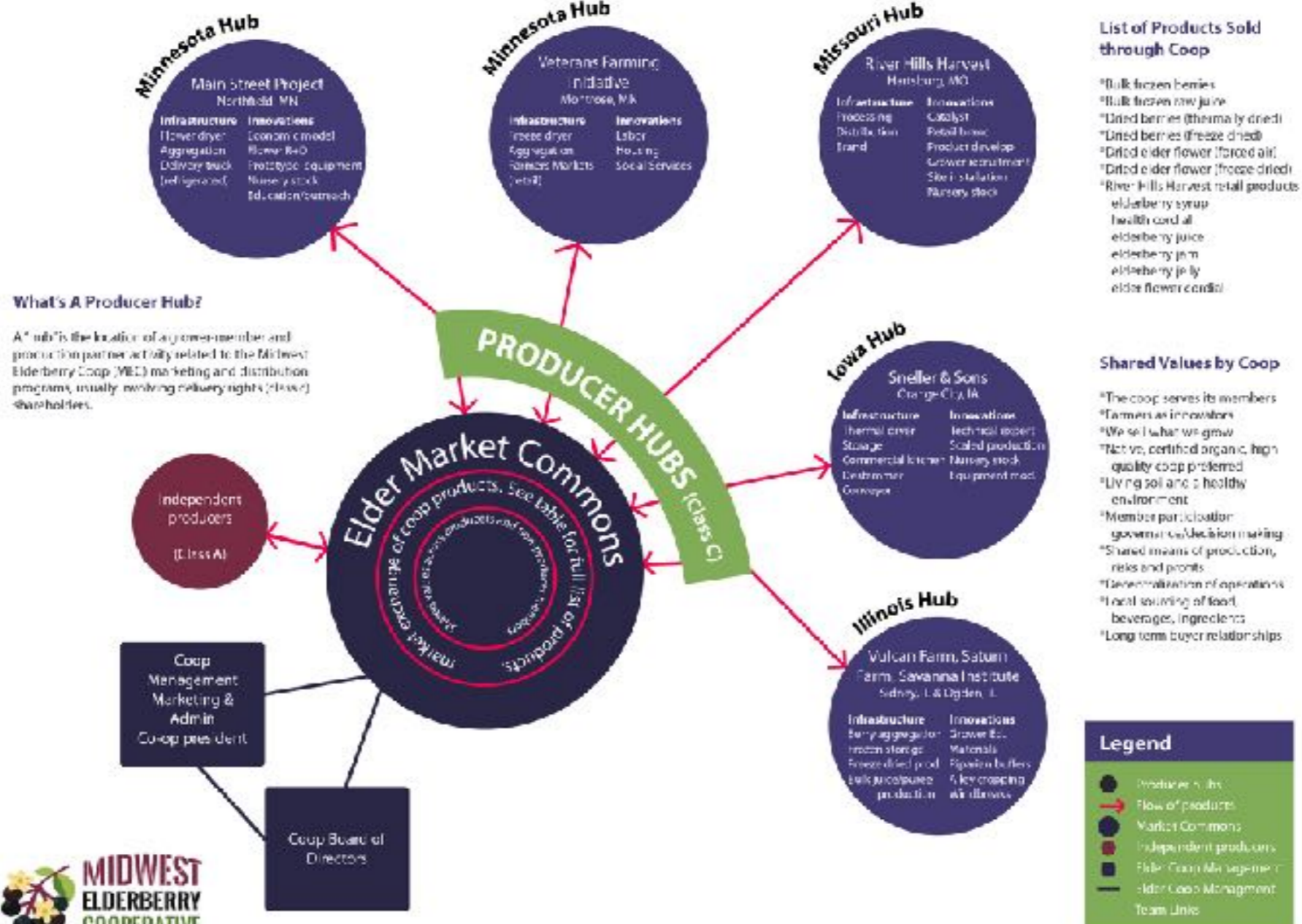
*Christopher J. Patton, MA, MBA
President, Midwest Elderberry Cooperative
<https://www.midwest-elderberry.coop>
January 2024*



The Big Vision

- **Decentralized Regional Processing Hubs**
 - ~ Grower participation in more of the value chain
 - ~ Chosen production varies by farmer resources & choice
- **Commercial volumes = repeat buyers @ competitive prices**
- **Commercial Competition: imported *S. nigra*, mostly European**
 - ~ European IQF elderberries for \$3.00 lb. (FOB east coast)
 - ~ Annual contracts, pourable totes instead of frozen blocks
 - ~ Low temperature powders from frozen berries & juice
- **Decentralization helps with distribution logistics & total price**

Midwest Elderberry Cooperative



Regional Hub Org Chart

Market Forces

Both Friend & Foe

- **Strong demand for elderberry remains**
 - ~ Consumer trend for local and healthy foods
 - ~ River Hills Harvest & others' presence in the marketplace developed American Elderberry awareness and demonstrated potential growth
 - ~ Established companies jumped in using cheaper, certified organic European elderberry ingredients: IQF berries, concentrate, powders
- **Global competition affects local prices**
 - ~ Imports set volume buyer price expectations
 - ~ Buyer production lines designed for specific ingredient formats
 - ~ Dependable supply, year after year required

Market Forces

Both Friend & Foe - 2

- **Competitive retail distribution not for everyone**
 - ~ Using traditional retail distribution > high marketing costs
 - ~ Amazon > online, will price advantage last? 1-day delivery?
 - ~ Trader Joes & Aldi > private label organic challenge
- **Better strategy: supply American Elderberry ingredients to established producer-distributors**
 - ~ Requires dependable, high volume, lower margin berry ingredients
 - ~ Requires documented nutrient presence & quality
 - ~ Greatly reduces market risks, labor and development costs
 - ~ Can be structured for repeat annual contracts for harvest

A Coop Answer

(General Principles)

- Cooperate to attract & proportionately share capital while increasing scale/size to compete effectively
- American Elderberry can benefit from traditional economies of scale: special machinery, aggregation of crop, etc.
- Should lead to more efficient field and crop handling, thus to lower costs of production:
 - ~ Competes more effectively against global prices
 - ~ Generates higher returns on invested \$ and time
 - ~ Spreads the risks geographically and by market segment

Challenge of Capitalization

- Cooperatives balance the freedoms of individual ownership with the opportunities of larger size.
- Coop ownership joins capital & labor to equalize distribution of wealth & opportunity
- Farmers share in production assets & operations > profits/losses
- Goal: lower costs of production to compete against imports
- Specialized equipment/technology required to lower production costs > labor hours, fixed costs/lb. in desired ingredient format
- High volume processing required to make existing co-packing services cost effective

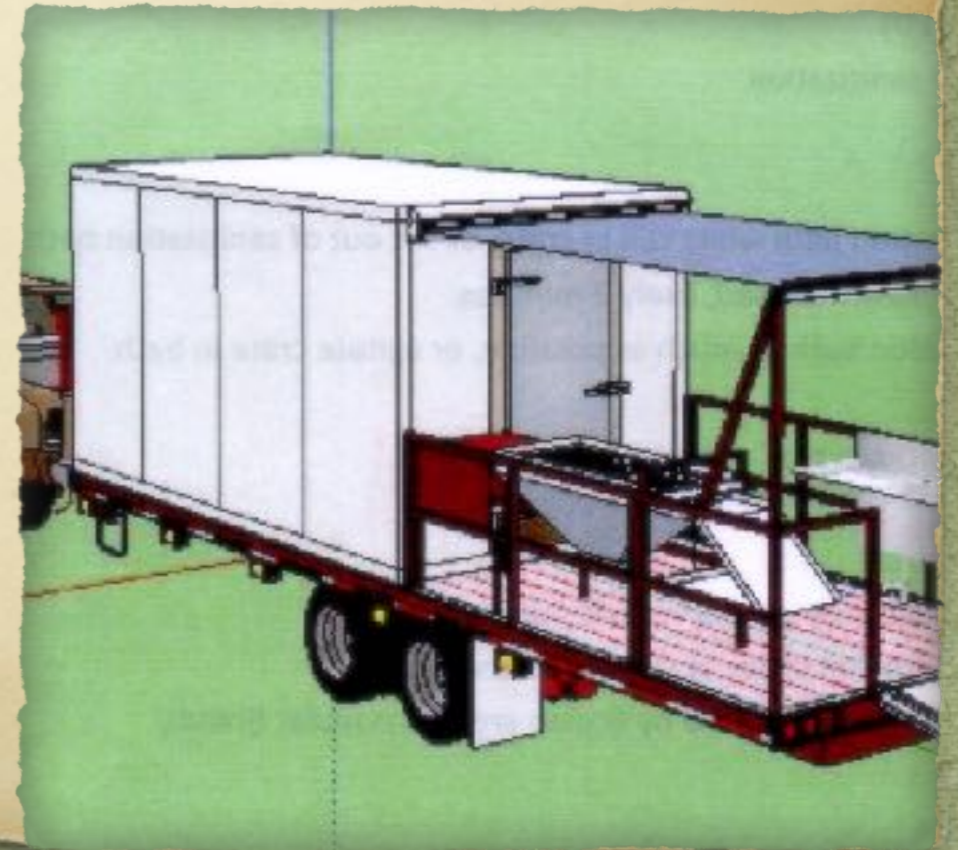
Cooperation = Capital

- Present crop challenges make it easier for a Big Corporation to buy from MEC than do it themselves.
- We will reduce grower costs to lower prices - not profits
- Secure & retain multi-year sales contracts
- Consolidate harvest destemming, processing in hubs with continuous flow capabilities, IQF American Elderberries
- By combining our existing production and efforts we can attract good agricultural financing, grants
- Midwest Elderberry Cooperative: coast-to-coast



Destemmer Challenge

- Must destem, clean, pack & freeze on day picked
 - ~ Organic production & SWD quality control
 - ~ Berries spoil in days even when refrigerated
- Current destemmers batch process 300-500 lb./hr.
 - ~ High labor requirement: 3-6 people or more
- Goal is continuous flow @ 1500+ lb./hr., 2 workers
- Service growers within 2 hr. travel time of hub
- Includes process line to clean & pack, frozen storage



CLC Market Development Grant

- Progress on American Elderberry's technological challenges
- Funds fabrication of a New Design Continuous Flow Destemmer
 - ~ Fountain Ark Farms, LLC in Delano, Jon Jobes & Brian Weber
 - ~ Additional funding still needed to build/acquire a processing/cleaning line and on-site frozen storage
 - ~ Potential for a future mobile version
- Scalable with challenges
 - ~ Best matched with Individually Quick Frozen pack
 - ~ Unfunded plan to adapt an existing prototype in WA state

American Elderberry Ingredients Market

- Progress in market discovery & copacker partnerships
- U of Minnesota Forever Green & U of Missouri since 2000
- Renewing the Countryside, Food Investment Institute, The Agroforestry Coalition, Savannah Institute, American Aroniaberry Association, The Walton Family Foundation
- Investing in the future of regenerative and sustainable agriculture with specialty crops, woody perennials
- American Elderberry has best market potential

Goals for 2024

- Functional Foods Grant - Renewing the Countryside
 - ~ The Walton Family Foundation
 - ~ Food Investment Institute - U of WI
 - ~ Elderberry, aronia berry and black currants
- Berry Ingredient Business Plan
 - ~ Individually Quick Frozen Processing - any small fruit
 - ~ Whole berry powders
 - ~ Juice & pomace powders
 - ~ Single fruit or combinations

Pilot Product Runs

- Identify best ingredient candidates by market demand
- Use business plan to secure project financing
- Produce certified organic ingredient(s) in volume
 - ~ At least minimum normal process run ~ 20,000+ lb.
 - ~ Analyze production costs and pricing
 - ~ Grower profitability from field crop & coop participation
- Test the market & develop commercial buyers

Hub Business Plan

- Contracts for crop & ingredients in advance of harvest
- Market demand and revenues by ingredient pro forma
- Facility location, configuration and construction or renovation
- Proximity to & capacity for sufficient grower production
- Financing
 - ~ Grant and government programs
 - ~ Investors: MEC a 308B coop with non-voting preferred shares
 - ~ CoBank and/or other lenders