

Virginia Farm Economies

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I'm not sure how many more elephants we can fit in this room

COVID-19

Social Justice

Resilience

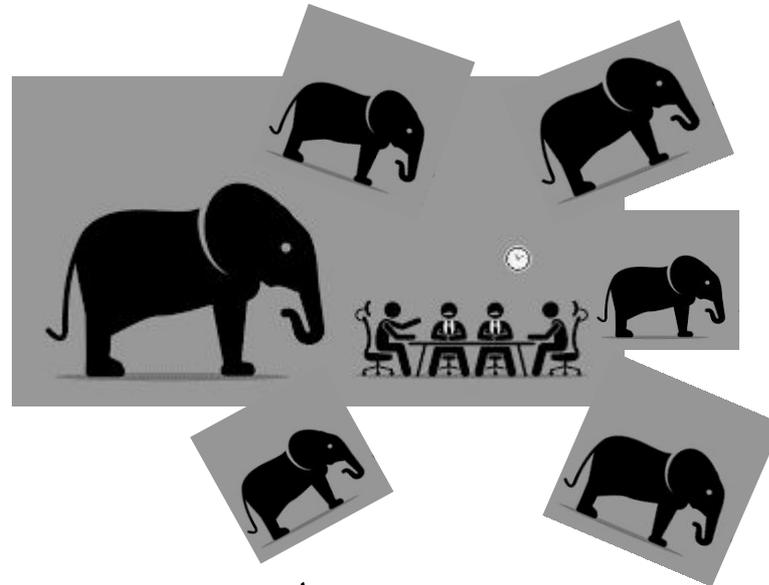
Redundancy

Efficiency

Sustainability

Climate Disruption

Food Insecurity



All these elephants might be different but some appear to be related and at least some of them may be able to walk out of here at the same time



Everybody at this country home goes to church every Sunday and are community builders. The quiet, peaceful homes in the country make a great national reservoir, from which the large cities are constantly drawing energy, good habits, morals and religion.

1. Overview of costs and returns for agriculture enterprises typical of the Appalachian region
2. Motivations that drive the people engaged in these enterprises. The 'family farm' business model, what we consider 'making a living', and the role of rented land in farm businesses.
3. Incentivizing 'regenerative practices' by people who farm and timber the Appalachian ridges and valleys.
4. How do we 'Bounce Forward' from the Pandemic?

Overview of costs and returns for agriculture enterprises typical of the Appalachian region



1. Price Inflation for Agriculture Inputs and Outputs

Price Inflation in Farm Inputs and Products	1973	2019	Change
Expenses Items:			
Large Round Baler	\$4,200	\$40,000	950%
Diesel Fuel	\$.17	\$3.40	2,000%
Farm Labor	\$1.50	\$10 - \$15	800 – 1,000%
Nitrogen Fertilizer	\$.09	\$.54	600%
Income Items:			
Milk Price (per gallon at the farm)	\$.73	\$1.64	224%
Cattle Price (Slaughter steers per cwt)	\$54	\$122	226%
Source: Jim Gerrish, 2013 Presentation, Winter VFGC meetings: "Get the Hay Out" and Nat. Ag. Statistics Service			

In 1974, it took 5,753 gallons of milk OR 7 slaughter steers to purchase a brand new round baler

In 2019, it took 24,390 gallons of milk OR 27 slaughter steers to purchase a brand new round baler

1. Costs and Returns from Agriculture Enterprises

Western Virginia:

A lot more like Ireland than Iowa

- Most of our land is held in parcels of less than 100 acres
- Topography limits opportunities for land-extensive machine-harvested crops.
- Livestock-related farm enterprises dominate the Appalachian farm landscape.
- We are currently not fully capitalizing on our proximity to population centers.

1. Costs and Returns from Agriculture Enterprises

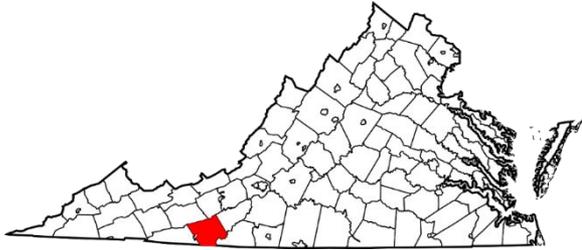
Common Farm Enterprises in the Appalachian Region: LIVESTOCK

Enterprise	Total Acres to Net \$75,000	Net Income per Acre	Operational Scale
Beef Cattle	1,000	\$75	400 cows
Sheep & Goats	600	\$125	1,200 ewes or does
Dairy (conventional)	136	\$550	100 cows
Organic Dairy	160	\$468	70 cows
Contract Poultry	57	\$1,300	3 Houses
Grains Grains, Organic Grains, Fiber Hemp, Hops)	300 – 1,000	\$250 - \$75	(Corn, Soybeans, Specialty

Direct-Marketed Agricultural Products

Commercial (wholesale) Vegetables, Fruit, & Specialty Crops
(Including CBD Hemp, THC Hemp)

Spotlight on Carroll County VA – where a community of knowledge and infrastructure has fostered viable vegetable farming businesses.



A Closer Look at Beef Cattle Economics – the leading ‘occupier’ of open land in the Mid Atlantic Ridge-and-Valley.

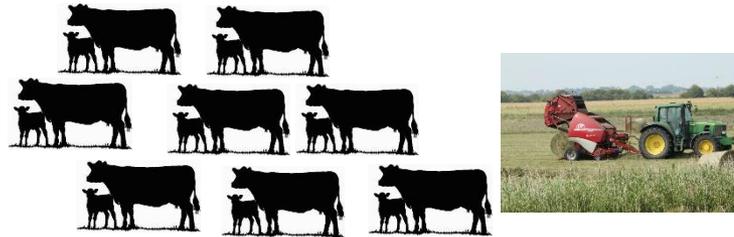
Example Beef Cow Herd Budget :100 cows, 250 acres

Budget Item	Case 1: 100 Cows, 250 acres Hay fed 120 d		
Pasture Maintenance ¹	\$12,332		
Hay	\$19,748		
Pelleted Supplement ²	\$10,031		
Salt & Mineral	\$3,060		
Veterinary & Medicine	\$2,968		
Total Annual Costs Per Cow	\$575		
Net Income (5-cwt calves at \$125 / cwt)	\$10,131 (-\$101/cow, \$40/acre)		

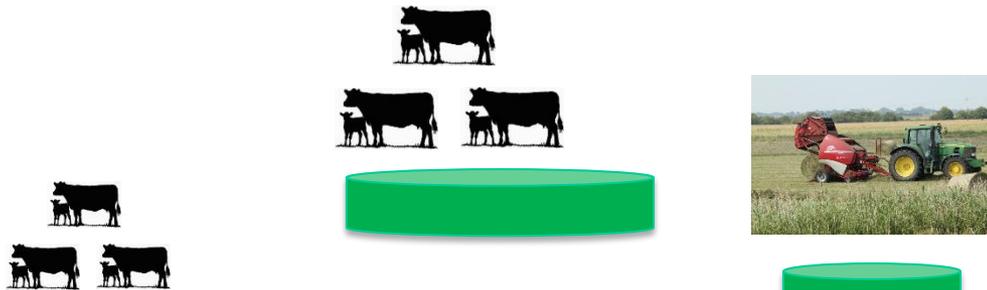
1. Pasture Maintenance = Annual mowing, maintenance fertilizer, 14% of acres treated annually with broadleaf herbicide, no labor cost included, 2.5 acres per cow, NO Land Rental charge.
2. Pelleted Supplement fed 120 days in Case 1 &2, fed only 60 days in Case 3 to whole herd plus sorting off and supplementing first calf heifers.

Typical Virginia Beef Cow/Calf Operation

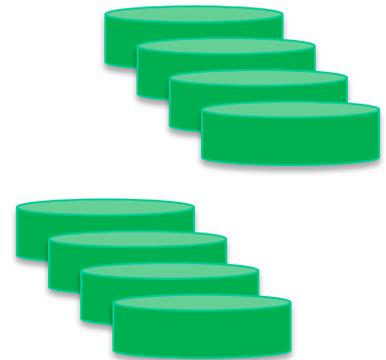
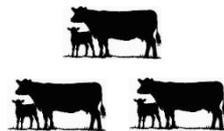
A 'home farm' where most of the cattle are kept and some hay can be made.



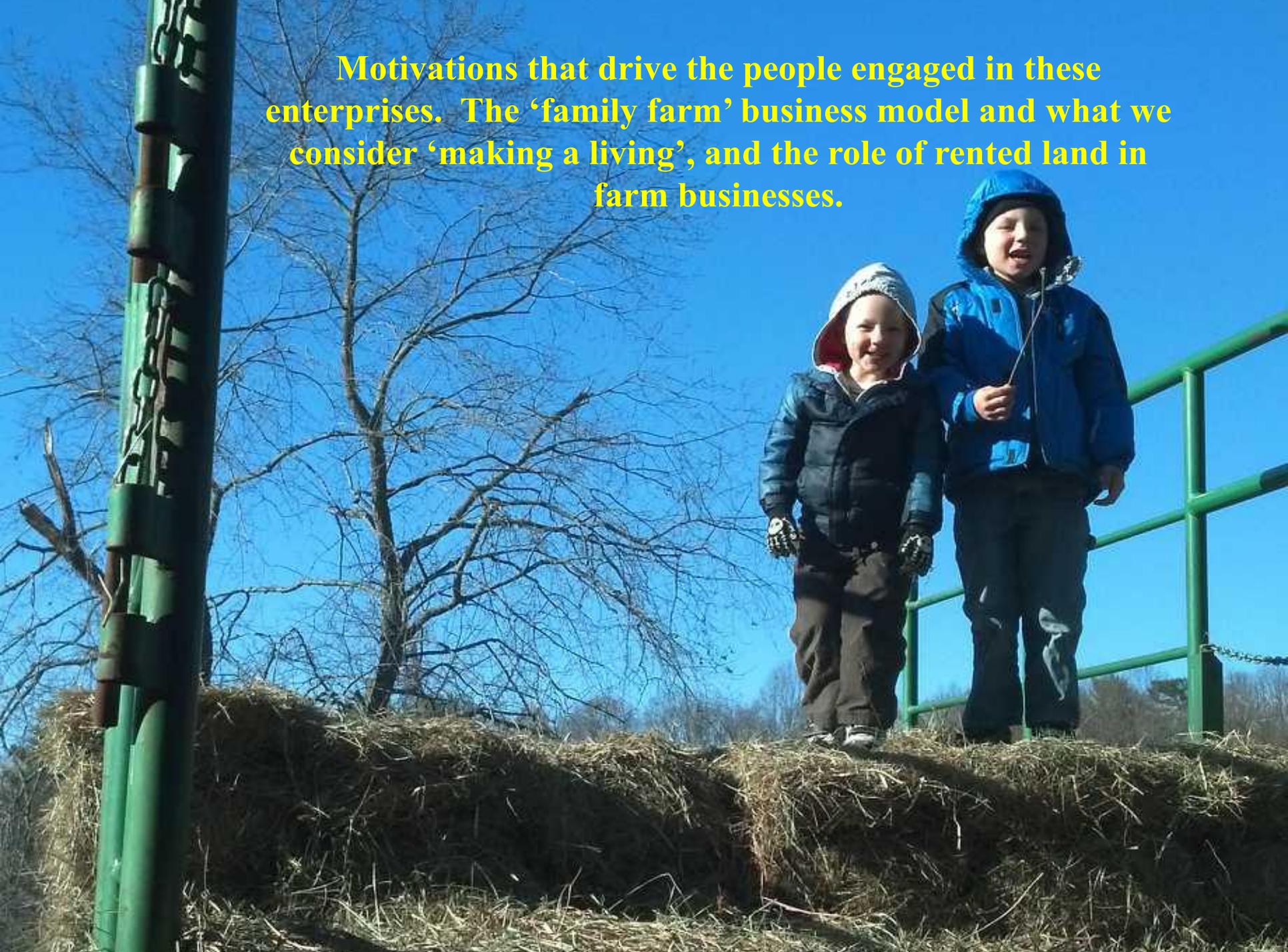
Outlying rental properties, many of which do not have fences or water to allow grazing but can be harvested for hay.



Move supplemental hay to locations where the cattle are kept.



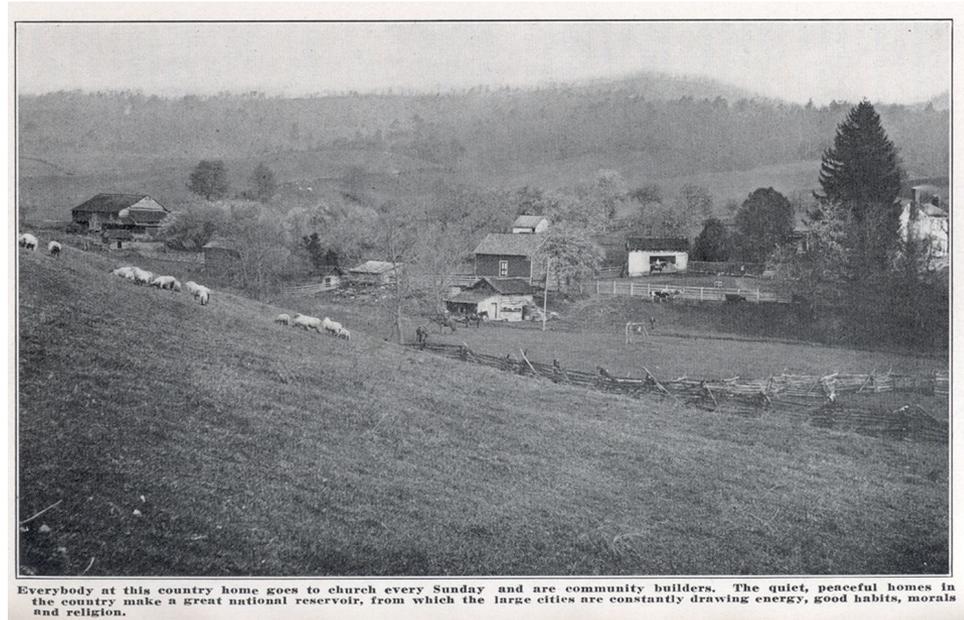
Motivations that drive the people engaged in these enterprises. The ‘family farm’ business model and what we consider ‘making a living’, and the role of rented land in farm businesses.



2. Motivations that drive the people engaged in these enterprises

So, with typical returns of less than \$80 per acre, why do people do this?

1. Independence – control over decisions and management
2. Enjoyment, sense of accomplishment.
3. Connection to nature, the seasons, traditions, and memories.
4. Supplemental Income, flexibility of scheduling farm work around the “day job”.
5. Sense of obligation, duty to tradition and family.



**3. The “Family Farm” business model and what we consider “making a living”:
What income has to be achieved to make the farm a viable business??**

**Benchmarks of the successful self-employed
business person (farmer)**

1. They own their own home
2. They cover health care needs either through insurance or self-insurance
3. The business operator can save to help support the education of children and cover their expenses in the later years of life when they are no longer able to work.
4. They pay their (self-employment) tax
5. They capture a market risk premium most years.

If successful – the operator wants to do more of it! – wants to grow / expand / bring children into the business – or set children up with their own farm (note re: Plain Communities)

3. The “Family Farm” business model and what we consider “making a living”.

For farm businesses to scale-up, they rent land . . .

1. Most farmland is rented on a 12-month, year-to-year arrangement. Land stewardship, however, is not a 12-month proposition! It takes 3 – 10 years to re-capture a capital investment in lime, fertility, weed control, fencing, or a farm building.
2. Established income potential is quickly capitalized into rental rates.
3. Farmers that derive a significant portion of their income from grazing livestock or commodity grains typically own less than 30% of the land on which they operate . . .
.70% of the land they farm is controlled by someone else!



Opportunities for the Future

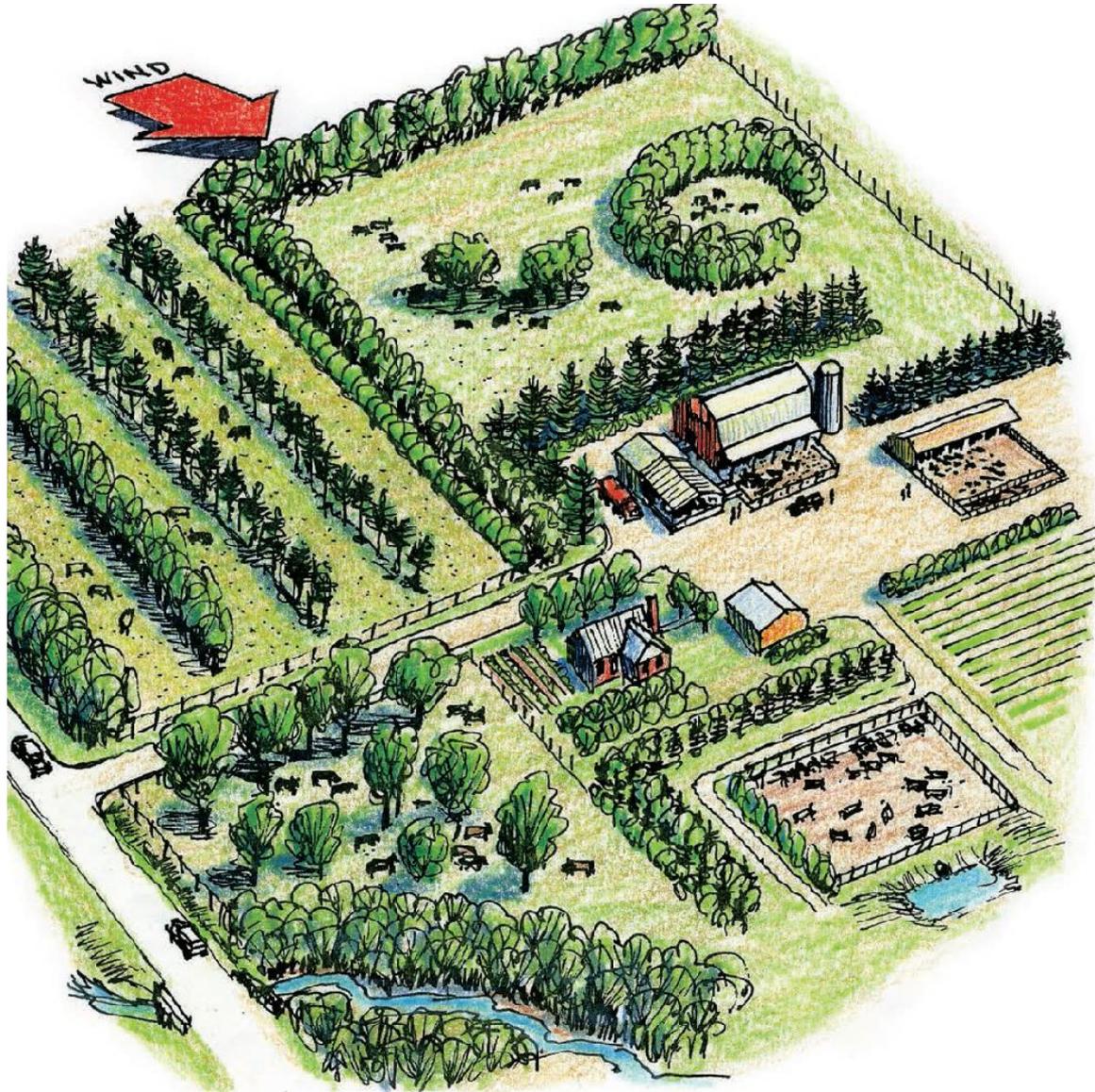
- Fresh, hand-picked, high-value vegetable and fruit crops
- Integrated livestock and cropping systems
- More attention to carbon sequestration
(silvo-pastoral systems)

Scale and labor efficiency still matter!



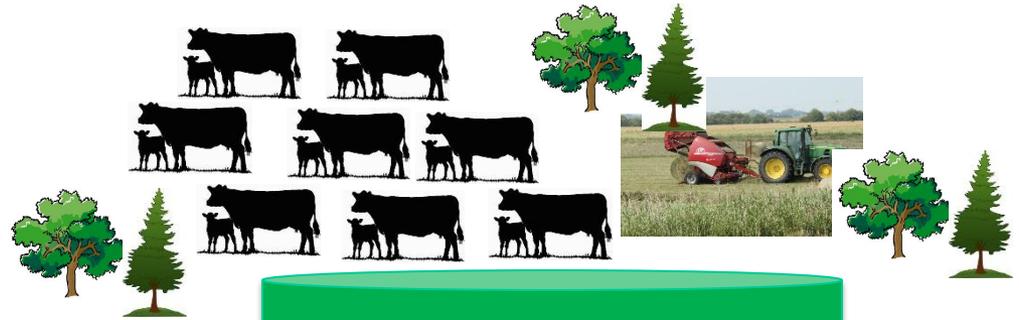
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Incentivizing 'regenerative practices' by people who farm and timber the Appalachian ridges and valleys.



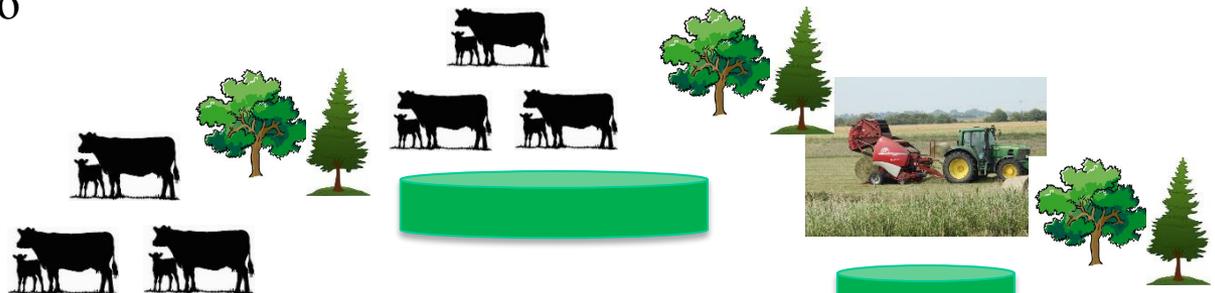
7. Incentivizing carbon sequestering practices: balancing the rewards for farmers, loggers, landowners, and rural communities.

Typical Virginia Beef Cow/Calf Operation

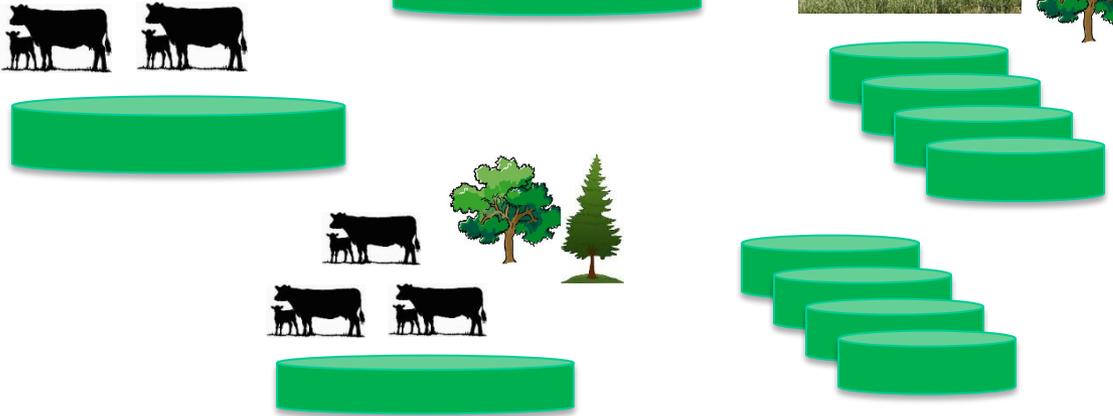


Outlying rental

properties, many of which do not have fences or water to allow grazing but can be harvested for hay. LET GO



How do we reward both landowner and farmer-steward?



How do we incentivize active year-to-year management for carbon?

A rural landscape featuring a large, rounded mountain in the background with a layer of white clouds or mist at its base. The foreground is a green field with a white wooden fence. The sky is filled with dramatic, grey clouds. The text is overlaid in the center of the image.

Converting humankind from a carbon emitting species into a carbon sequestering species will demand active management of our rural landscapes.

The COVID-19 Crisis

- Bouncing FORWARD from a crisis:
- 54-minute podcast by Doug Avery, New Zealand Farmer
- Available on the Beef-Lamb New Zealand website:
- <https://beeflambnz.com/knowledge-hub/podcast/bouncing-forward-crisis-doug-avery>

Bouncing Forward from a Crisis

From Doug Avery:

4 things critical to a successful farm business:

– Love

– Connection

– Purpose

– Hope

“Loose any two of these, the farm business will decline, Loose three of them the farm business is in very serious trouble” - Doug Avery

How do we Bounce Forward?

Ask ourselves in the farm business:

What is the loving position?

What is the connected position?

What is the purposeful position?

What is the hopeful position?

. . . it is to make our product that little bit better, that little bit less infringing, that little bit more restorative. We need to develop the mechanisms where the value chain from farm to table is transparent and accessible. That's not new – lots of folks in agriculture were striving for that before the pandemic. The pandemic is offering agriculture new opportunities for Love, Connection, Purpose, and Hope. If we look for those opportunities – we can bounce forward.

These principles apply to the cow/calf producer that sells calves to corn belt feedlots just as much as it does to the market gardener who sells at the local farmer's market

In order to restore our planet's carbon balance, we must secure active participation of farmers, loggers, and others that work the land. We need people who understand how to make things grow, how to operate and repair equipment that moves and manages biomass, and who have a cultural connection to a spot on earth they call 'home'.

