

Holistic Management of...



Money



People



Land



Livestock

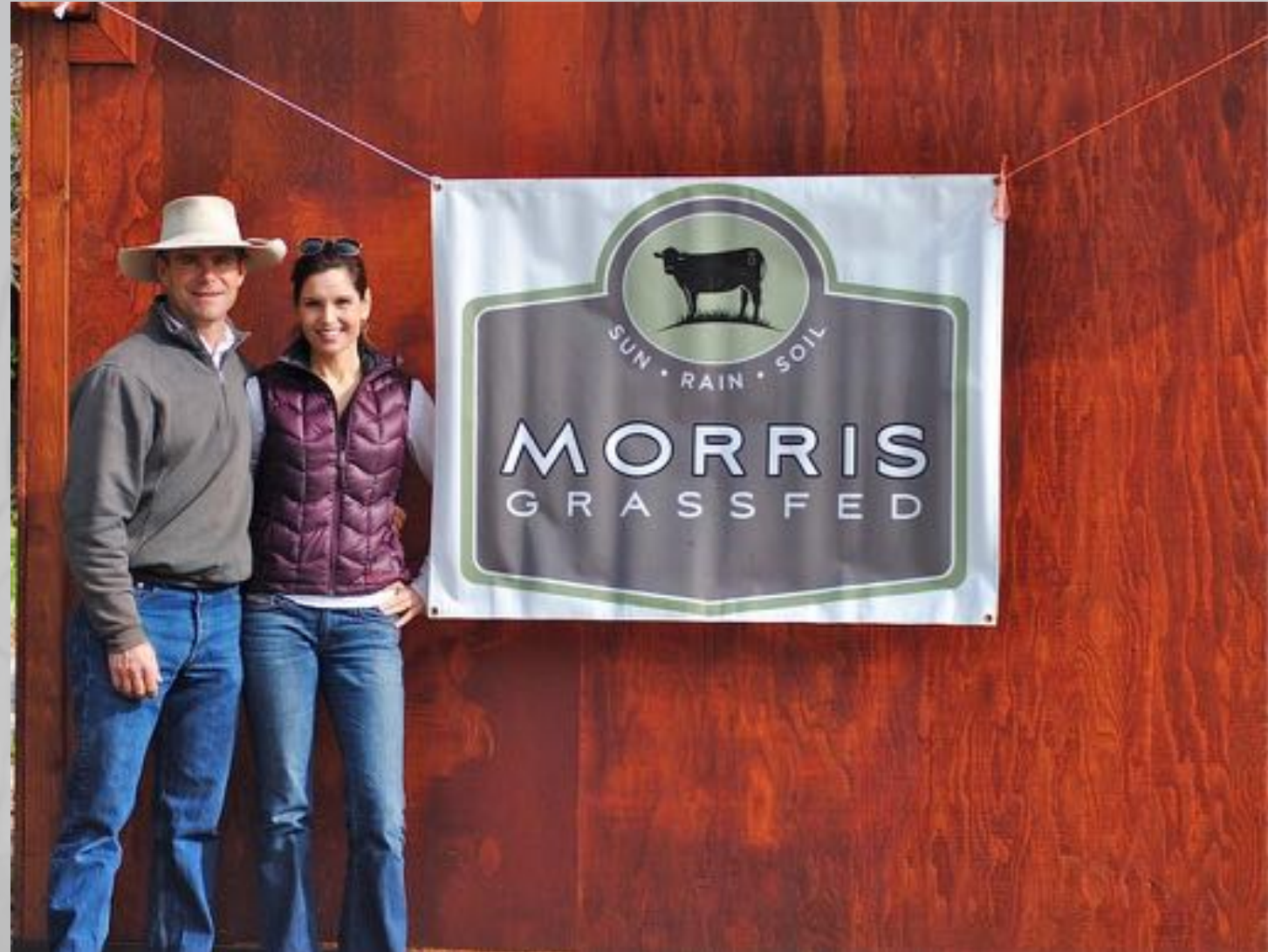


Holistic Planned Grazing Workshop

December 12, 2018

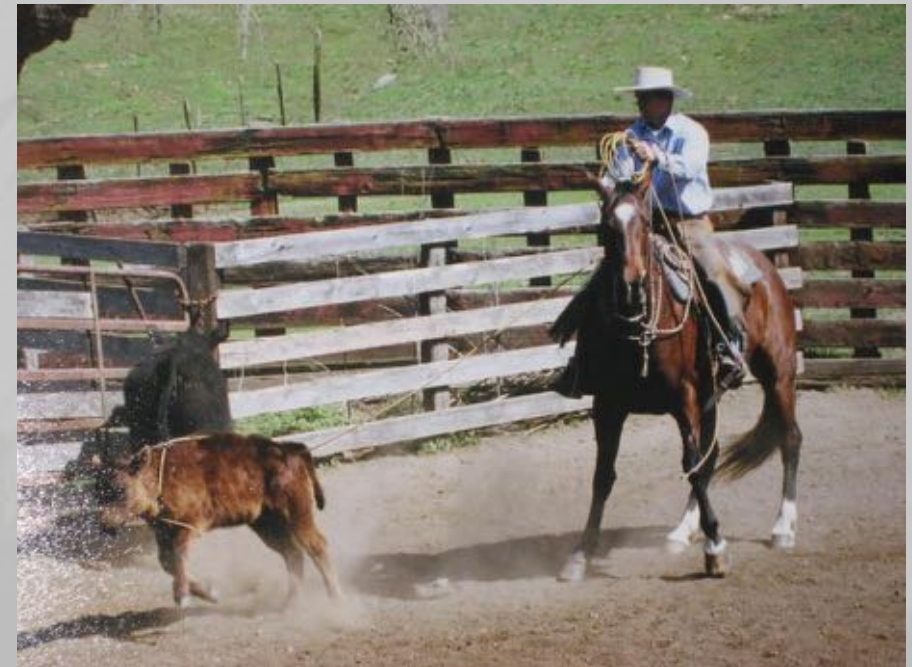
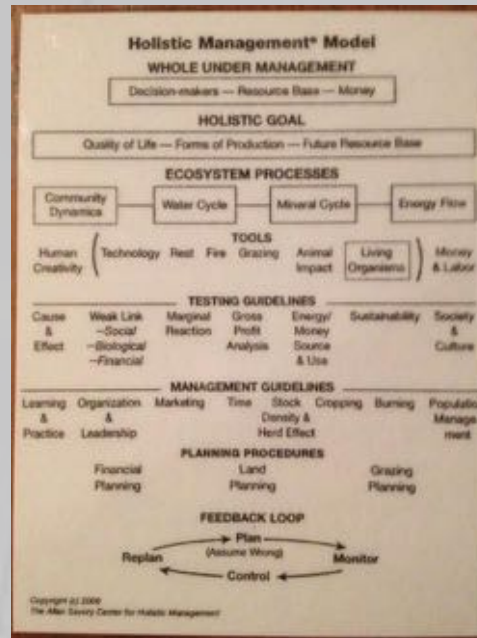
History

- 5 generations of ranching in California
- Began in the Gold Rush in San Francisco
- Added value to ranch land and animals since then.
- My grandfather was president of the CCA and Livestock Man of the Year in 1957, John J. Baumgartner, Jr.
- Steeped in the heritage of the vaquero
- Buckarooed and started colts on big outfits in Nevada, Montana and New Mexico.
- Worked with the poor in Venezuela and taught high school in Washington, DC.
- Re-started T.O. Cattle Company in 1991.
- Began marketing Morris Grassfed Beef in 1993





It's all connected, so Everything matters!



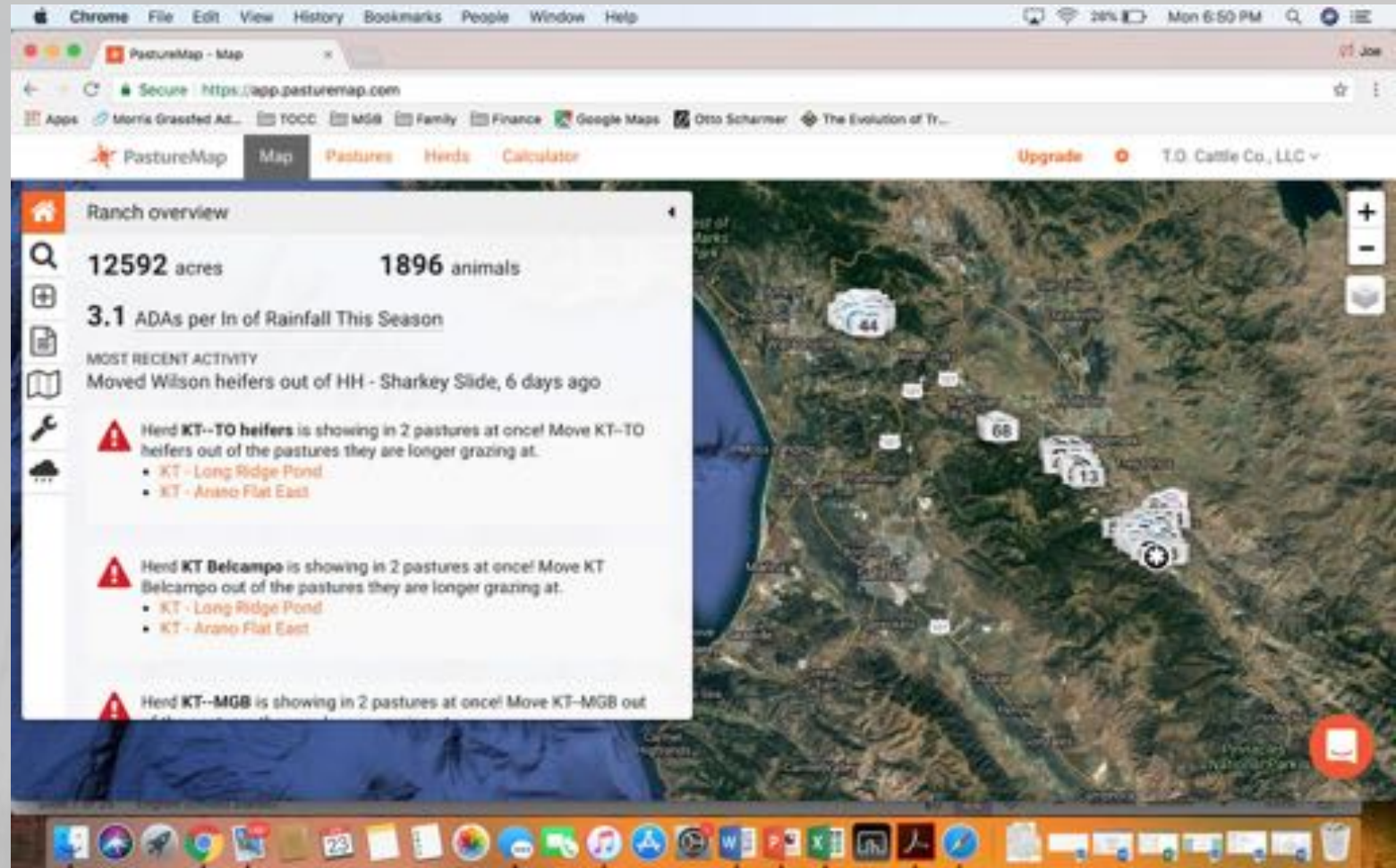
Making decisions within a holistic context:
LandPeopleAnimalsMoney
--Allan Savory, 1991

How will you know for yourself?

1. Write down your goals and your context.
 1. Test your possible decisions or actions in this context.

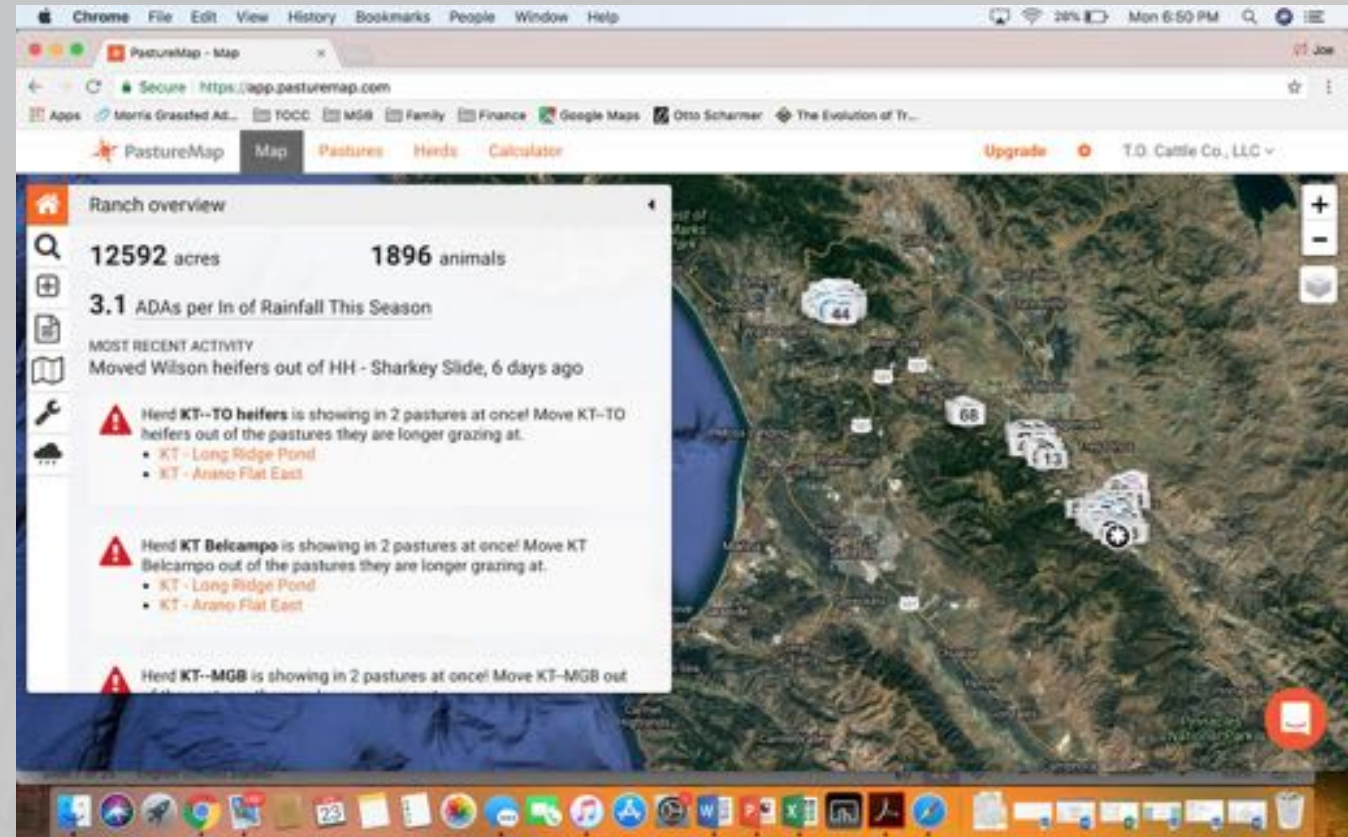
Holistic context: People

- We need to be peaceful.
- We must have time for rest and recreation.
- Our work needs to be creative and contributing to our community.
- Our employees must love their work, be well compensated and able to develop as people and as professionals.
- We have 3 FTEs, 2 seasonal, 1 PTE.
- Our landlords and customers must enjoy working with us and find inspiration in our work.



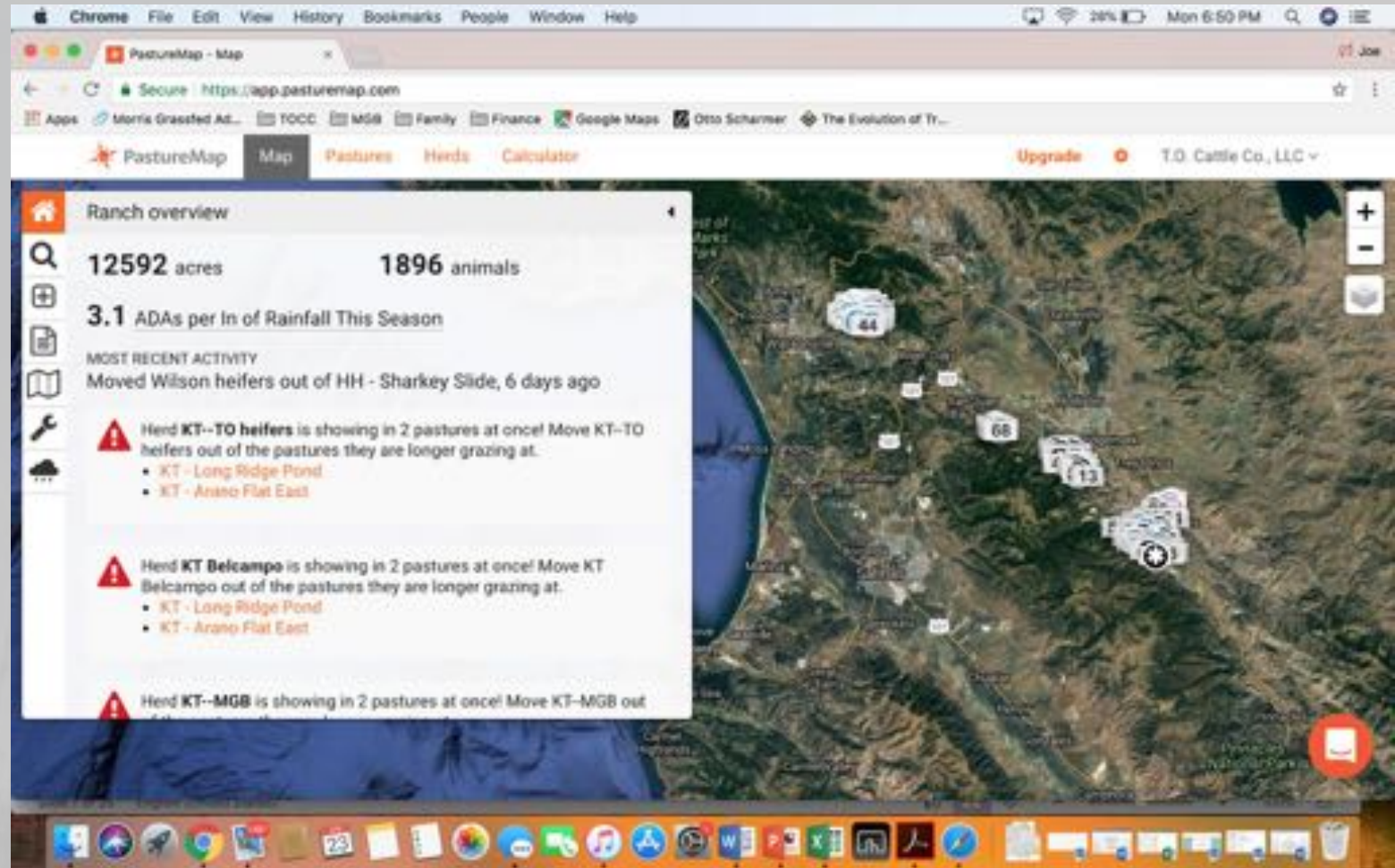
Holistic context: Land

- 5 leased ranches on the Central Coast, 45 miles apart
- 1 State Park, 4 privately held
- Unpredictable and seasonal rainfall from 11-20” from east to west.
- The land which supports us needs to grow in land function and beauty over time.
 - Water must move into our soils rapidly and flow slowly from there.
 - Minerals, namely carbon, must become more abundantly fixed in our soils.
 - Solar energy must be captured on every square foot of our land and for longer and longer periods throughout the year.
 - The plant community will be characterized by mixed perennial grasses, forbs, shrubs and trees and support vast biodiversity.



Holistic context: Money

- We need to be profitable. We strive to pay ourselves a middle class salary and a reasonable return on our assets.
- Contract grazing
 - 34 loads of cattle, 75% of which belongs to others
 - Four customers
- Morris Grassfed Beef, our direct marketing enterprise
- We develop heifers to sell as bred heifers



The holistic decision-making framework

Holistic Context or Best Possible Outcomes	(For example) We value creativity, peacefulness, generosity, simplicity and freedom. We celebrate all life as sacred and connected. Our work on the land will be done in light of this-- meaningful to us, encouraging health, of service to the community and generating true wealth based on ecological function. It will reflect our love for the land, our respect for others, and our vaquero heritage. We will manage as if, in truth, everything matters!					
Decision Making Matrix	Enterprise or "Whole":	TOCC	← Possible tools or Actions →			
Cause and Effect (Is the action dealing with the cause of the problem or only treating a symptom? Could this action create new problems by defying the principles of succession?)	Problem?:					
Weak Link:						
Financial (Solar Energy Chain: Resource, Product, Marketing)						
Biological (Life cycle of organism)						
Social (Logjam or social issue?)						
Marginal Reaction: (Which tool or action will give greatest return toward strengthening the Weak Link ?)						
Gross Margin Analysis: (Contribution of enterprise , after direct costs, to covering overheads?)						
Energy/ Wealth, Source and Use: (What is the source of energy or money to be used? Is the pattern of use cyclical, consumptive, addictive, or does it build infrastructure?)						
Sustainability: (Brittleness factor? Will the action move the ecosystem processes toward our Future Resource Base ?)						
Society and Culture: (Will this action really lead to the life and values we desire, and what will it do to others?)						
Justification: (Can I honestly say these tests were done objectively and not to simply justify a preordained conclusion?)						
Decision:						

How will you know for yourself?

1. Write down your goals and your context.
 - a. Test your possible decisions or actions in this context.
2. Create a plan to achieve them.
 - a. Vision for your life based on your values.
 - b. Financial plan that emerges from your vision and supports your life.
 - c. Plan to produce the landscape to support your economy and quality of life.

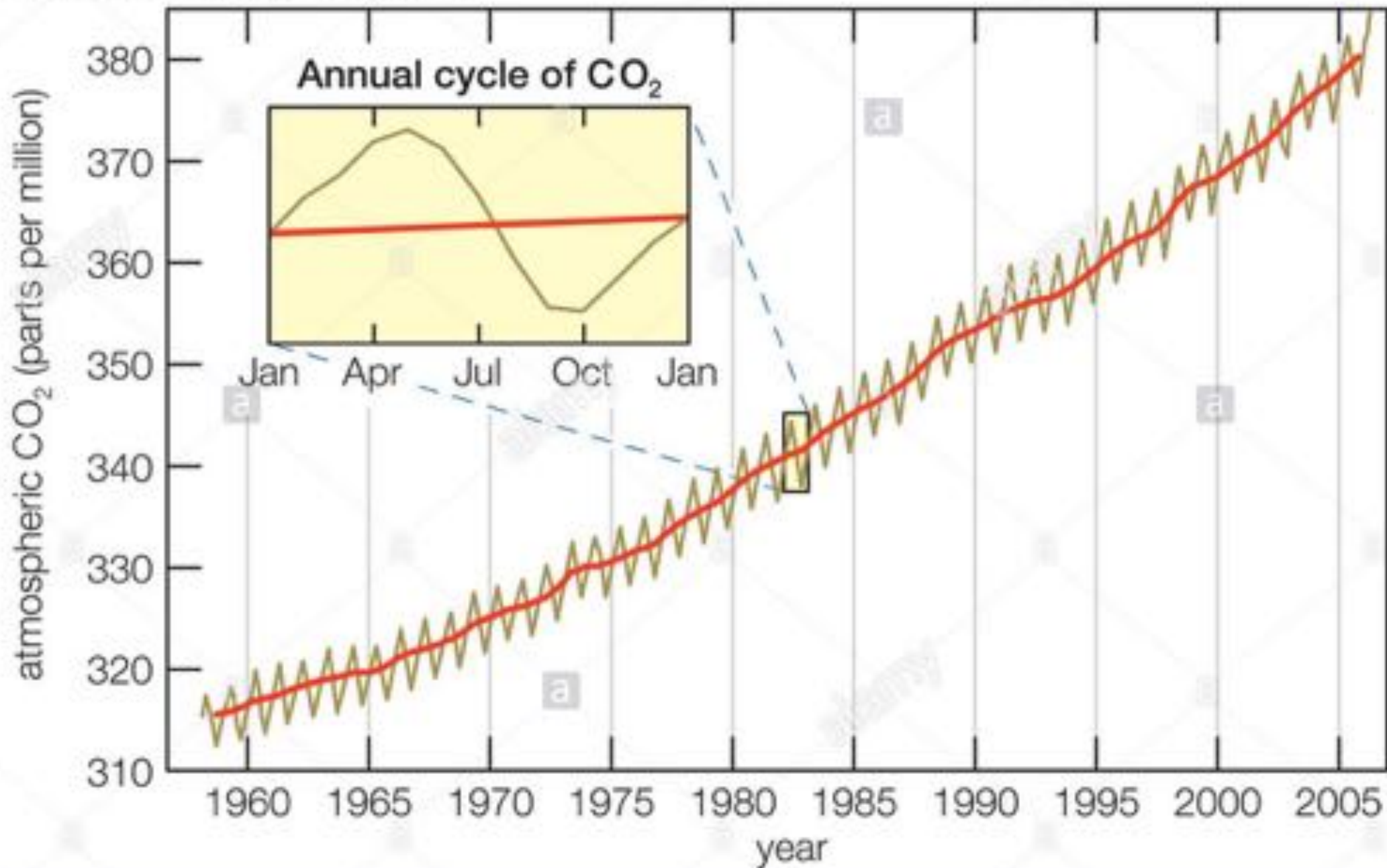
Have a plan, man!



Create a financial plan to produce profit.

- There are only three ways to increase profit.
 1. Reduce overheads.
 1. Land, labor, tools used by labor
 2. Improve Gross Margin per unit of production.
 1. Increase G. Inc. relative to direct costs or *vice versa*.
 3. Increase turnover.
 1. Stock Days per Acre/ 1” of rainfall

The Keeling Curve



Only two options:

1. Atmospheric carbon is fixed. Or
2. It is oxidized.

Ecosystem services derived from “fixing” carbon and thereby improving soil health:

- Nutrient Fixing
- Water cycling
- Nutrient cycling
- Climate regulation
- Food and fiber
- Nutrient density
- Bird and Wildlife habitat
- Energy flow from sunlight to profit
- Community intelligence
- Beauty
- Wealth preservation
- Recreation, etc.



Basic soil health principles:

- Increase photosynthetic rate.
- Increase photosynthetic capacity.

Basic soil health principles:

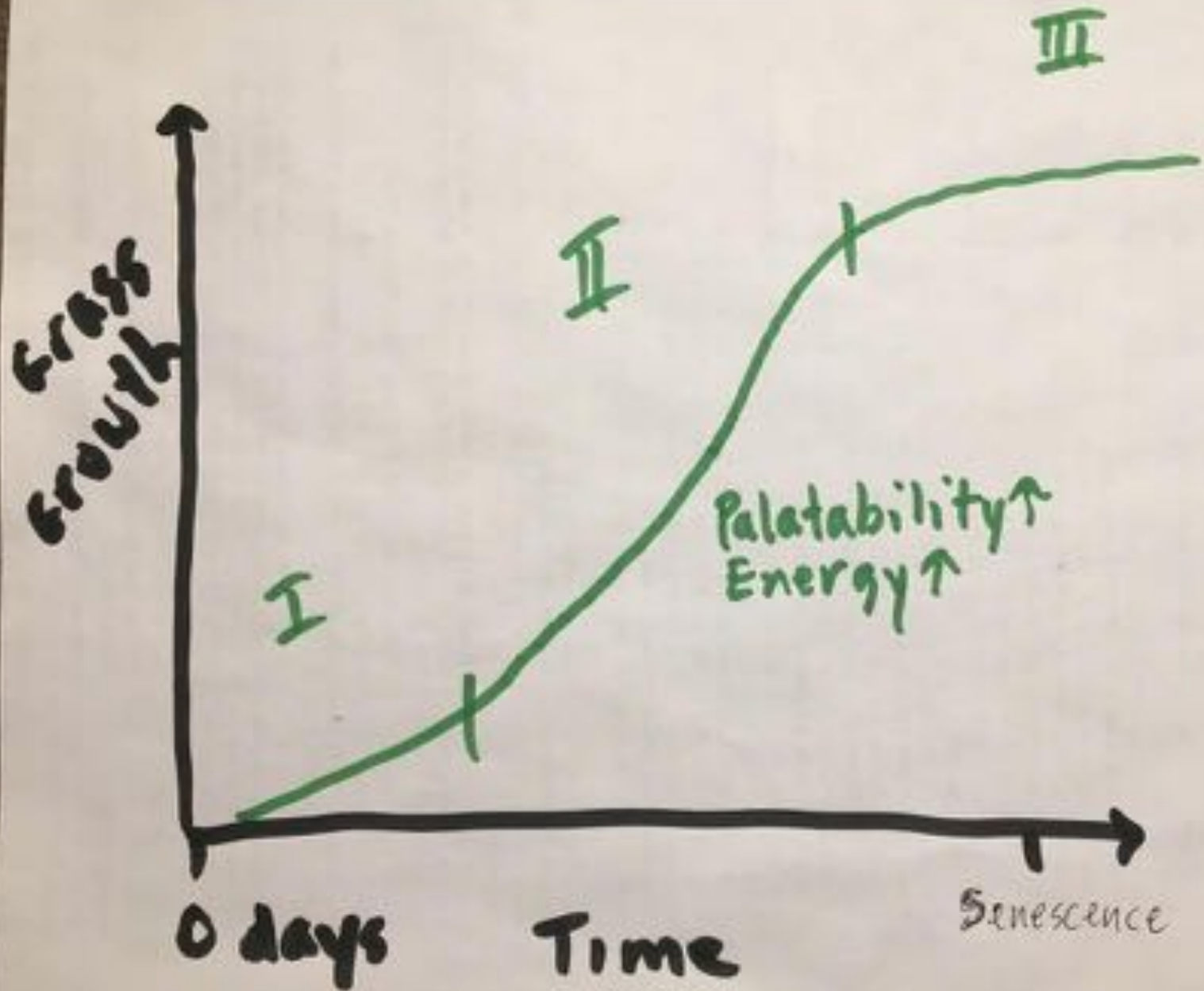
- Increase photosynthetic rate.
- Increase photosynthetic capacity.
 1. Use plant diversity to increase diversity in the soil.
 2. Manage soils more by disturbing them less.
 3. Keep plants growing throughout the year to feed soil life.
 4. Keep the soil covered as much as possible.

NRCS--USDA

Integrate animals: **"Nature never farms without livestock."**

-- Sir Albert Howard

Photosynthetic rate: Grass growth curve



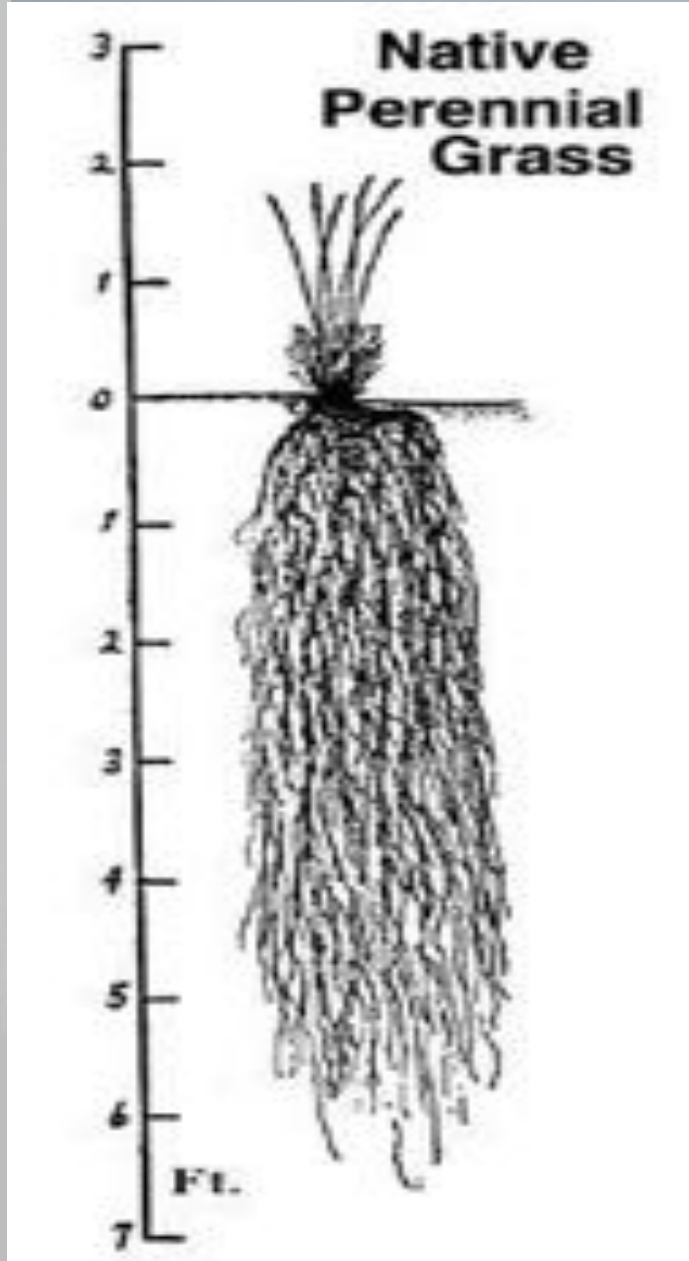
Photosynthetic capacity



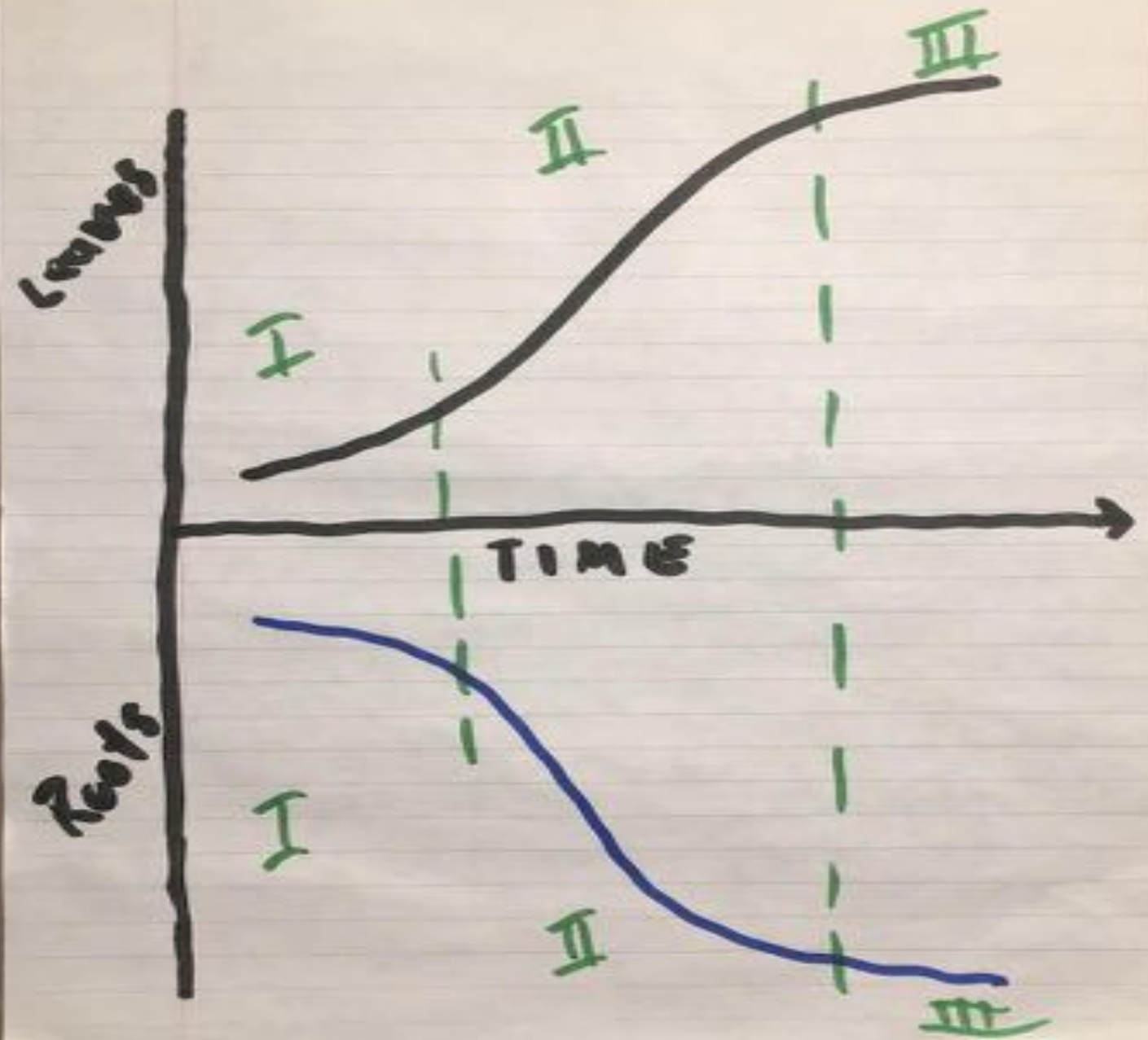
Vs.



The root of the matter.



Grass growth curve with roots



Managing in a grassland context

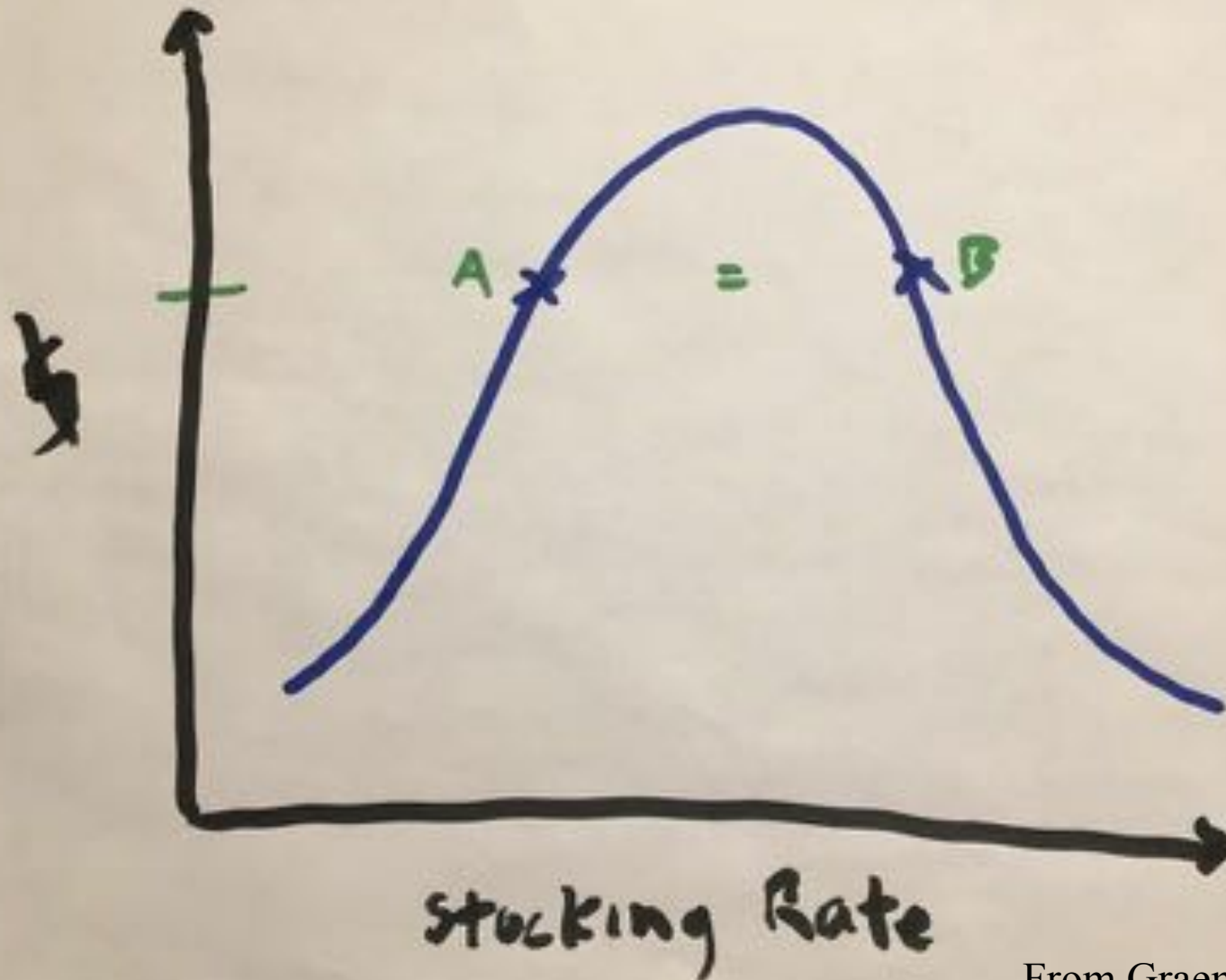


Plan to get the right animals in the right place at the right time and for the right reasons!

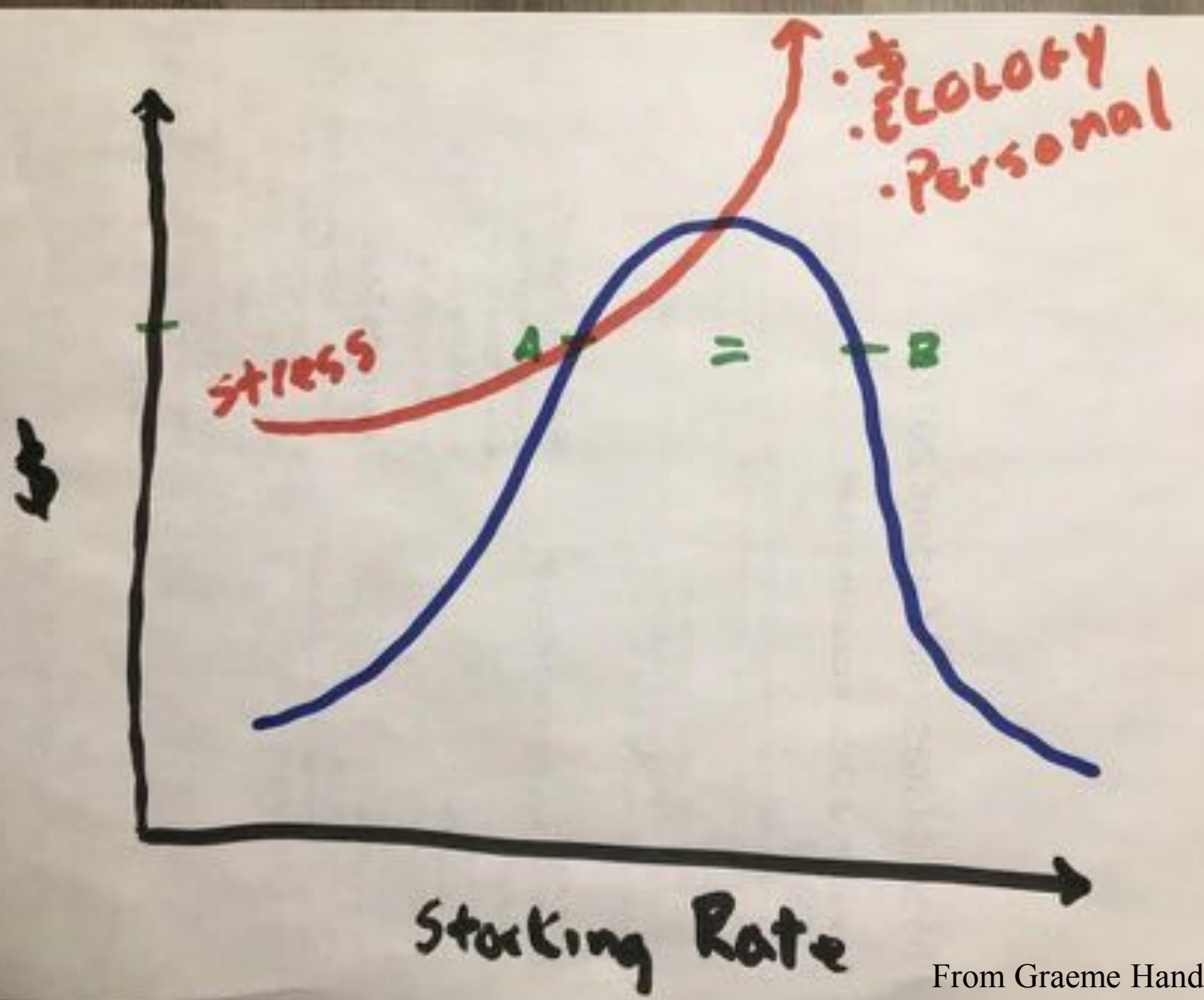
The image shows a 'Breeding Plan & Control Chart' for a farm. The chart is a large grid with columns for months (December, January, February, March, April, May, June) and rows for individual animals. The chart is filled with handwritten notes, including dates, animal names, and various symbols. There are several yellow and orange highlights on the chart, indicating specific events or periods. The chart is titled 'Breeding Plan & Control Chart' and includes a section for 'Breeding Plan' and 'Control Chart'.

Animal	December	January	February	March	April	May	June
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4							
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Stocking rate, Profit and Stress



From Graeme Hand










From Graeme Hand

“To what height should the grass be grazed?”

Andre Voisin, Grass Productivity, p.56



Figure 5-1 Relationship between grazing and root growth (Crider 1955)

	Top Reduction	Single Clipping
	90%	No root growth for 77 days. 60 percent of root growth on 33 rd day.
	80%	No root growth for 12 days. 96 percent of root growth on 33 rd day.
	70%	Approximately 48 percent of root growth after 17 days. 159 percent root growth on 33 rd day.
	60%	Approximately 55 percent of root growth after 5 days. 192 percent root growth on 33 rd day.
	50%	Averaged a 3 percent root growth stoppage for 14 days. 223 percent root growth on 33 rd day.
	30%	117 percent root growth on 3 rd day. 250 percent root growth on 33 rd day.
	0%	129 percent root growth on 3 rd day. 338 percent root growth on 33 rd day.

Source: National Range and Pasture Handbook (190-VI, NRPBH, rev. 1, December 2003)










“The decision must be the [person’s] not the animal’s.”

--A. Voisin

Good science vs. Good management

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Severely grazed



Recovering:

Not ready for prime time!



Ready to graze

Fully recovered grass.
Note "fresh" leaf litter.



“The earth is like a piece of fruit...”

Judy Earl, Australian soil scientist and farm advisor



- Think of an apple, if we remove the skin...
 - It dries out
 - Begins to break down both biologically and chemically

A virtuous cycle: From bare ground to a soil carbon “sponge”!



Local soil temp monitoring:

Date – Ambient temp: 60-83 degrees F	Bare soil	Covered	Oak canopy w cover
4/21/18	76 degrees F	66 degrees	52 degrees
4/21/18	87 degrees F	72 degrees	66 degrees
4/21/18	120 degrees F	83 degrees	



Landscapes vary, our tools vary: many ways to skin a cat.



How will you know for yourself?

1. Write down your goals and your context.
2. Create a plan to achieve them.
3. Monitor on a small scale until you learn what you need to know about recovery periods and stocking rates, etc. for your ranch.

Rancher to rancher learning site



“Monitoring is THE BEST Practice!”

--Peter Donovan, www.soilcarboncoalition.org



BAUMGARTNER
RANCH
4-16-07

How will you know for yourself?

1. Write down your goals and your context.
2. Create a plan to achieve them.
3. Monitor on a small scale until you learn what you need to know about recovery periods and stocking rates, etc. for your ranch.
4. Adjust your plan as your monitoring informs you so that you continually move toward what you want.

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The grass is greener on *our* side of the fence!

Questions?



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