

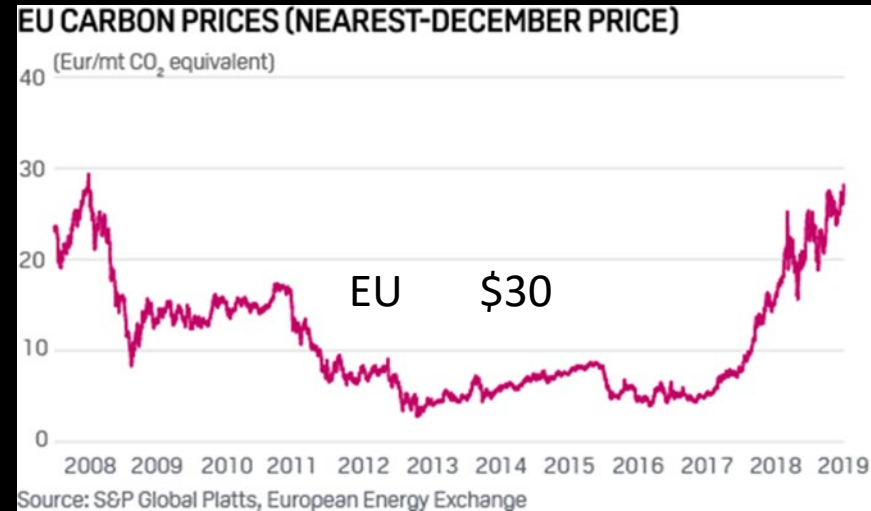
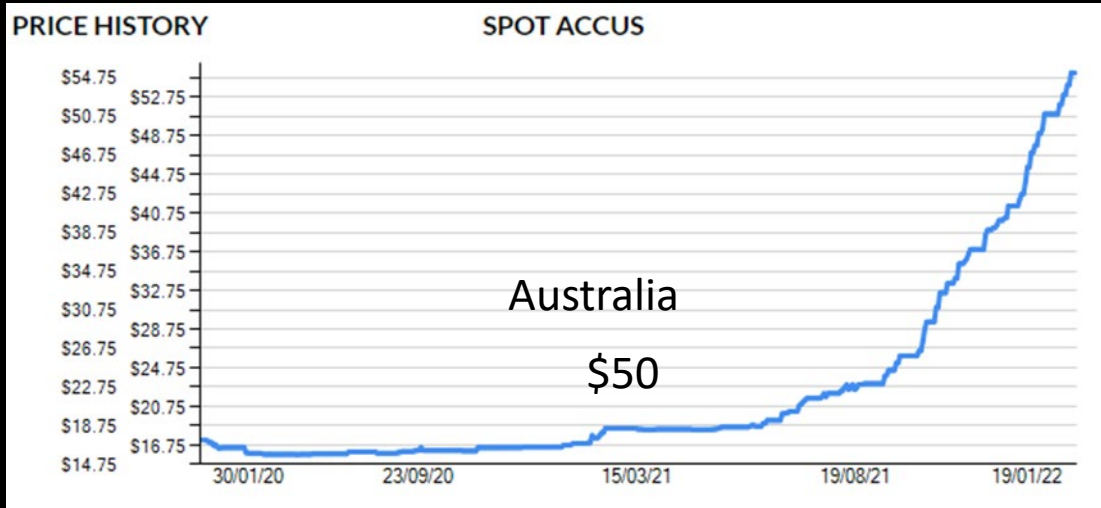


OREGON ASSOCIATION OF CONSERVATION DISTRICTS ANNUAL MEETING
October 31-November 2

Ray Seidler – **Carbon Marketing**

The globe is Shifting to a low carbon economy
average carbon prices could increase more than sevenfold to US\$120 per metric ton by 2030
. <https://www.spglobal.com/en/research-insights/articles/what-is-carbon-pricing>

Spot values for 1 ton sequestered carbon CO2 equiv. removed



By way of background...Last 7 years

Lectured, held farm field projects, and chaired meetings/conferences on the topic of regenerative ag/ and carbon sequestration. (Board member, technical advisor to several nonprofits.

Three years ago I ventured to Australia to learn first hand about their nationally funded Sequestration program. It's originally funded by the taxpayers of Australia. I was very impressed and it left an indelible impression.

Two years ago I was the Team leader on a two day **virtual international conference** dealing with **regenerative ag and carbon sequestration marketing opportunities**. We had over 400 attendees, had 12 participants including two from the commercial carbon market, others from Australia and the U.S. as Agency members, scientists, other professionals.

The take home message from key presenters at the conference was:

IT'S TIME TO PUT SCIENCE INTO ACTION. TALKING IS OVER, SCIENCE IS READY, ALBEIT EVOLVING.

LET'S GET TO WORK SEQUESTERING CARBON **AND REWARDING LANDOWNERS AND MOTHER EARTH FOR THEIR EFFORTS.**

Intl symposium

Nov. 2020

Recap 77 pp.

See: Cultivate Oregon web site
Digital Resource Guide with
Q&A
https://www.cultivateoregon.org/video_gallery

THE DIGITAL RESOURCE GUIDE



Enabling Regenerative Agriculture: Getting Paid for Improving Soil Health

Recap from our 2020 Soil Symposium:
Data / Videos / Resource Guide

PRODUCED BY CULTIVATE OREGON,
A PROJECT OF EARTH ISLAND INSTITUTE

WHAT ARE HEALTHY SOILS?

Soils resulting from specific agricultural management practices---

THAT INCREASE SOIL ORGANIC MATTER (58% C) ← CO₂

Only living things can have health.

“Healthy soils are full of life”,
NRCS/USDA

Healthy soils contain 1-5 tons of living organisms/upper 6 inches/acre -
they need to be fed!

Regen. Ag

Stabilizes, fertilizes, protects



6 offset programs facilitate carbon market transactions

Who wants to buy sequestered Carbon? As of 8/2019 are 101 major corporations committed to reducing C footprint. Includes 36% S&P 500



Companies/governments needing to meet their emissions targets



THE CARBON MARKET

projects

C sequestration ag., forests, etc.

sequestered carbon to sell with 3rd party verification



"Title House" brokers

Inbetween buyers and sellers

Indigo, Nori, Terrapass Agoro

Make buying seq Carbon easier for corporations as well as you and me. This action is reported to **international registry** and C sequestered on this property is so noted.



guarantees amts. C sequestered

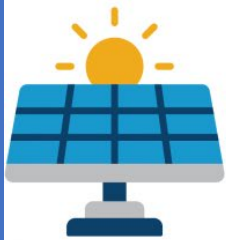


certificate obtained for payment of

The IPCC Working Group sixth assessment report shows that the world will **probably reach or exceed 1.5 degrees C (2.7 degrees F) of warming within just the next two decades**. Currently the earth has warmed to 1.1C since the industrial revolution.

Explaining the 2021 IPCC Report

Can We Limit Global Warming to 1.5°C By 2100?



If we take aggressive action today*...

we can limit temperature rise to 1.6°C by mid-century and reduce to 1.4°C by 2100



If we take a high-carbon pathway**...

temperatures could climb to 2.4°C by mid-century and reach 4.4°C by 2100.

What Actions Are Necessary to Limit Warming to 1.5°C?



Decline global GHG emissions from the 2020s onwards



Reach net-zero GHG emissions by mid-century

CO2 PERSISTS 300-1,000 YRS. IF EMISSIONS ONLY ARE REDUCED, WE MUST STILL REMOVE CO2 FROM THE ATM. TO AVOID LONG TERM DISASTERS.

On Oct. 27 2022 OSU scientists and an International coalition of scientists published a report, “earth’s vital signs have worsened”, and Earth is “unequivocally” in the midst of a climate emergency.

USDA Natural Resources Conservation Service has grant opportunities.



Currently 15% of U.S. farm acres are receiving conservation related financial and technical assistance from the federal government. 15% = **More than 140 million acres in federal conservation programs.**

Conservation Stewardship Program (CSP)

Environmental Quality Incentives Program (EQIP)

3-5 year contract periods

For landowners planning and using practices like cover cropping, nutrient management, irrigation water management, prescribed or improved grazing conditions, fencing and forest stand improvements, the reduction of soil erosion.

<https://www.fb.org/market-intel/more-than-140-million-acres-in-federal-farm-conservation-programs>

It is unknown how many acres are measuring sequestered carbon.

Extent of soil measurements are known and insufficient acres are in a carbon market program.

NO REPORTING HELPS NO ONE! No U.N. tallies are generated on status of U.S. C sequestration.

Nori News Release Sept. 2021

“Four Years, Six Farmers, and 50,000 Nori Removal Tons Later, We’ve Taken Our First Steps in Reversing Climate Change”





17+

Carbon Removal Projects



117k+

Tonnes of Carbon Dioxide
Emissions Removed



\$1.8m+

Paid to Farmers

Agoro \$9 mill. Paid out

Get Involved in the Nori Marketplace

Nori, Indigo Ag. pay \$20/ton CO2



Pre-Order Nori Carbon Removal Tonnes (NRTs)

We're currently out of stock but are accepting pre-orders for Nori Carbon Removal Tonnes. We've received overwhelming support from people like you (thank you!) and are ramping up our supply.

To place a pre-order, your card will be charged now and within 1 year you'll get a certificate when your order is filled.

Pre-Order

OUT OF STOCK MEANS NO MORE SEQUESTERED CARBON TO SELL AT THIS TIME WE NEED MORE LANDOWNERS TO PARTICIPATE.




Emissions Reduction Fund 14th Auction 5-6 April 2022

Results released 11 April 2022




The Clean Energy Regulator asserts the right to be recognised as author of the original material in the following manner:
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In Australia:
192M Tons CO₂
abatement
Some 500 projects

 **7.6m tonnes**
of CO₂-e
contracted abatement

Average price
per tonne of
abatement
\$17.35



\$131.8m
committed at the
14th Auction



\$2.7b
total commitment



25 
projects
contracted

Method types contracted



Agriculture



Vegetation



Landfill
& waste



Facilities



Sadly, Oregon landowners face numerous challenges in joining a commercial carbon market. Some of the problems are experienced by all farmers, but some issues are pretty much unique to Oregon. Here is a list of issues, which will be followed by my suggestion for viable assistance to address the problems.

A. Landowners in general are reluctant to sign an agreement (i.e., contract) with a corporate carbon market. A contract will define the goals and carry promises to do what the landowners agreed to do. Credit cards, marriages also involve contracts).

B. There is a minimum land acreage required (in the ranges of 300-1,000 acres) to make things work financially for all parties. Carbon market corporations seek out landowners with the very largest farms or ranches first. greater than 1,000 acres: Kansas has 12,000, Texas 20,000 ,Oregon only has 2,200. Some 83% of Oregon farms are smaller than 180 acres and will not qualify to join a commercial carbon sequestration program.

<https://www.oregon.gov/oda/shared/documents/publications/administration/oragfactsfigures.pdf>

C. Landowners must begin a new, additional agronomic practice when the contract is begun or at some recent time (2-5 years) In the past. Changing a practice often costs money and many landowners view a change as an experiment.

D. Third party verifier companies must be hired to document the C sequestration plan and document progress in the sequestration accuracy and its process. Costs average \$3,000-\$5,000.

E. Landowners must agree to a 10 year or sometimes longer term contract.

F. Landowners must use an agronomic practice that conforms to a computer modeling program (like Comet Planner) or intermittently take field samples to measure soil organic matter. For highest quality carbon credits (most easily sold) a certified testing lab must be involved. More money.

G. Livestock operations typically have larger amounts of land. Rotational grazing practices are used to sequester carbon. Some carbon corporations do not have a computer model that predicts C sequestration from rotational grazing. Additional cross fencing and ranch help may be required which costs money.

H. Larger ranch operations often have federal contract grazing rights. No one seems to know at this moment whether those Federal lands can be leveraged to participate in a commercial carbon market project for the benefit of the rancher.

I. Landowners with years of conservation ag. practices (cover crops, no till, etc.) may have already sequestered a lot of SOM. This makes it difficult to find a new additional practice that further increases the SOM buildup processes. SOM may be close to being maxed out.

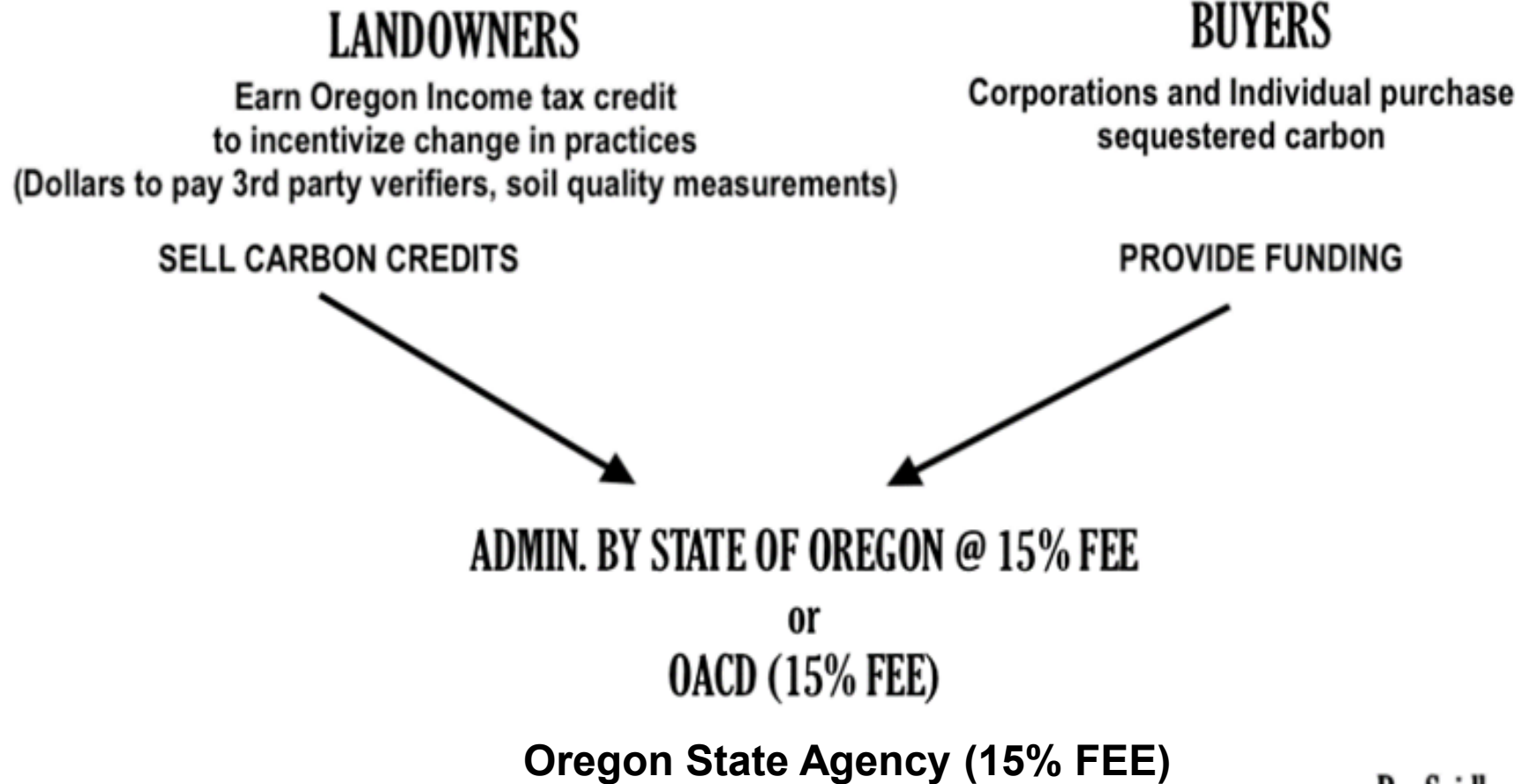
IF 20% of Oregon 16 million farmed acres sequester 0.5 tons/ac as C ALL GHG emissions from Oregon agriculture (6MT, CO2 equiv) will be removed from the atmosphere.

20% X 16 mil ac = 3.2 3.2 mill ac X 0.5 t/ac as C = 1.6MT C X 3.67 = 5.9 Mt as CO2 equiv.

The 5.9 Mt of CO2 removed from the atm has a street value of over \$100million!!!!!!



“The Proposed Plan”
AGRICULTURAL CARBON SEQUESTRATION IN OREGON
(ACSIO)



THANKS FOR YOUR ATTENTION!



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