

# Soil carbon sequestration: from potential to reality

Jonathan Sanderman | 4 April 2019



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# Take away messages

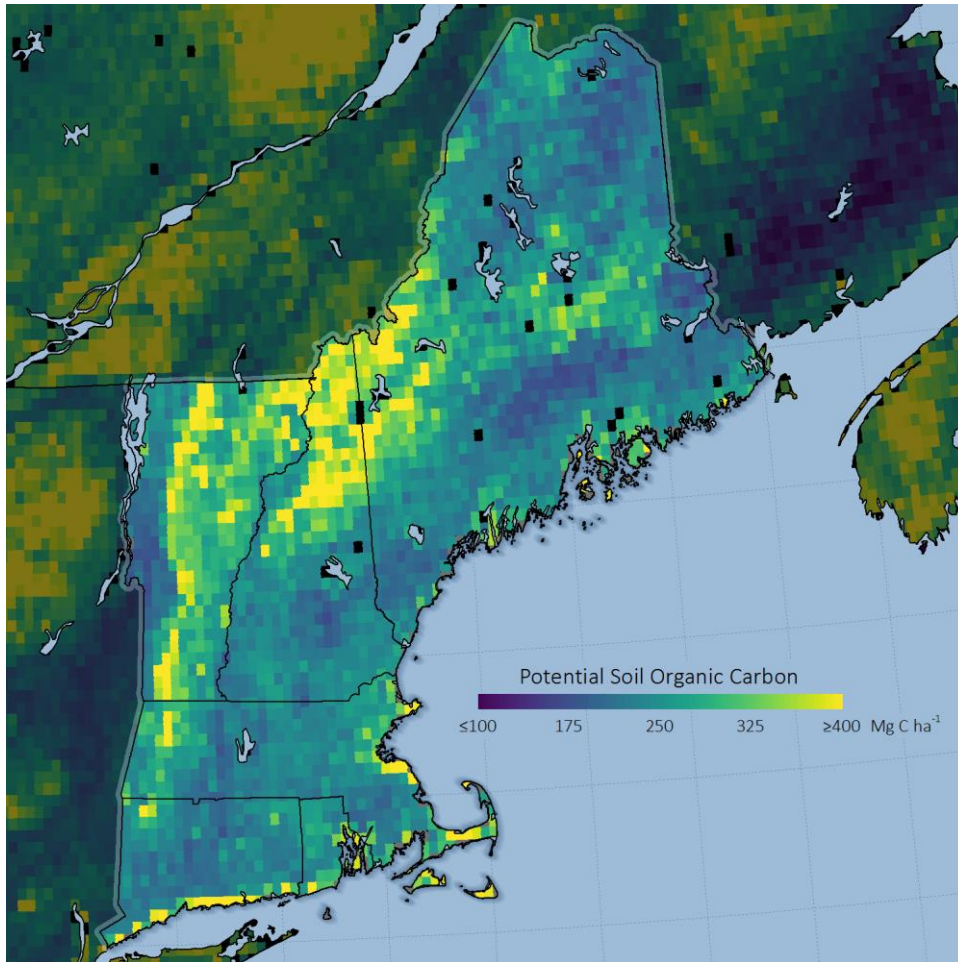
1. Loss has created an opportunity but don't forget about the trees
2. We can stop loss and rebuild some SOC but there are limits and variability
3. Science is slow relative to innovation but don't dismiss science
4. Focus on soil health and sustainability and treat climate mitigation as a co-benefit



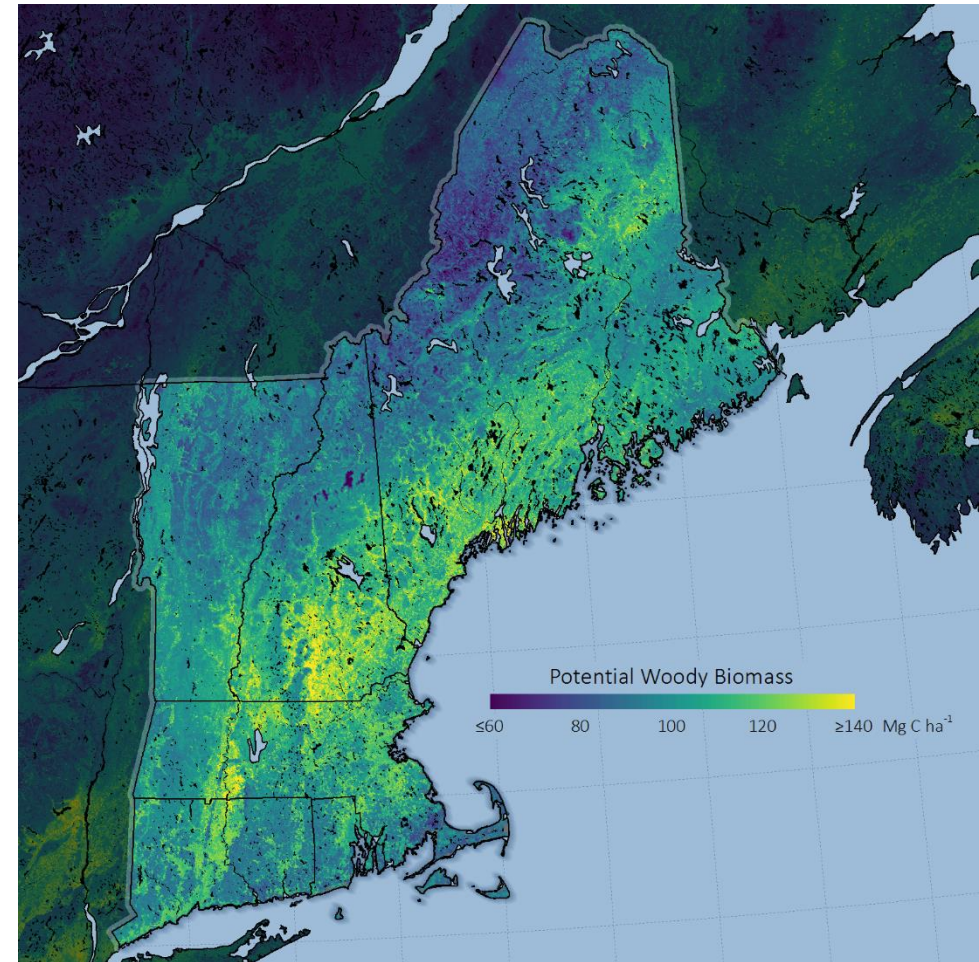
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# Potential carbon stocks of New England



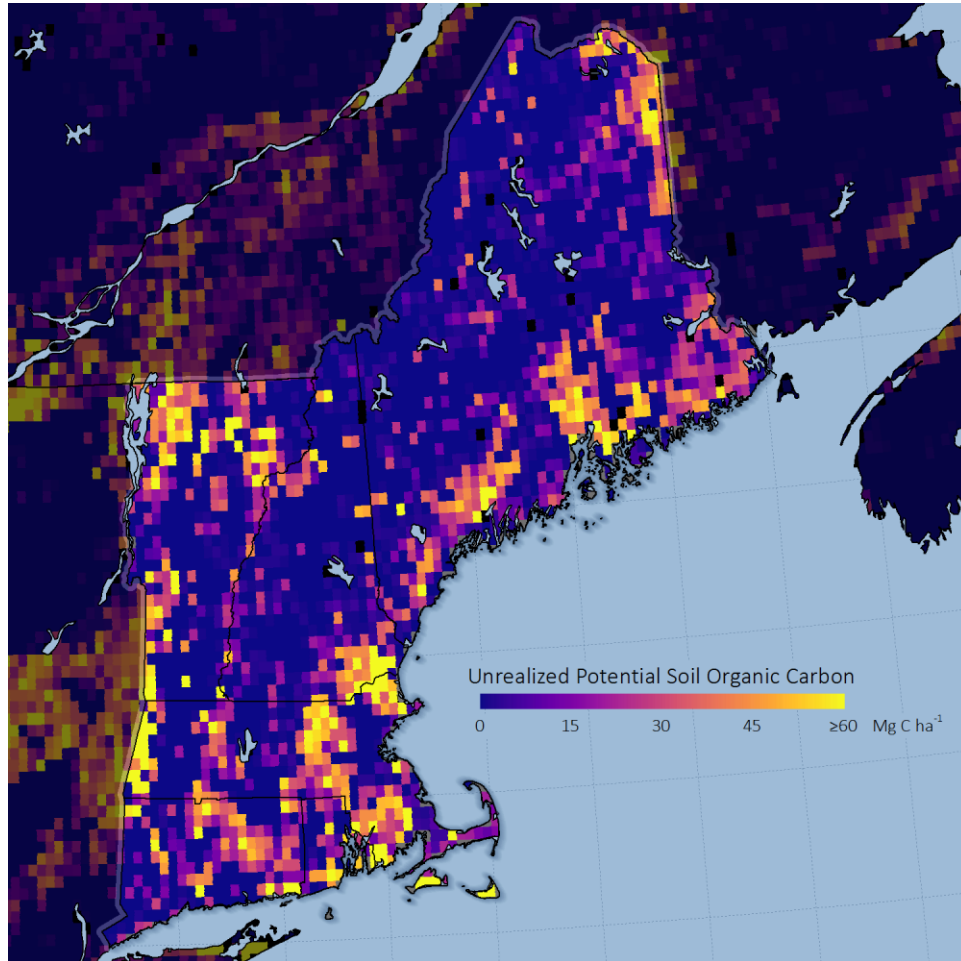
Soil = 4300 million tons C



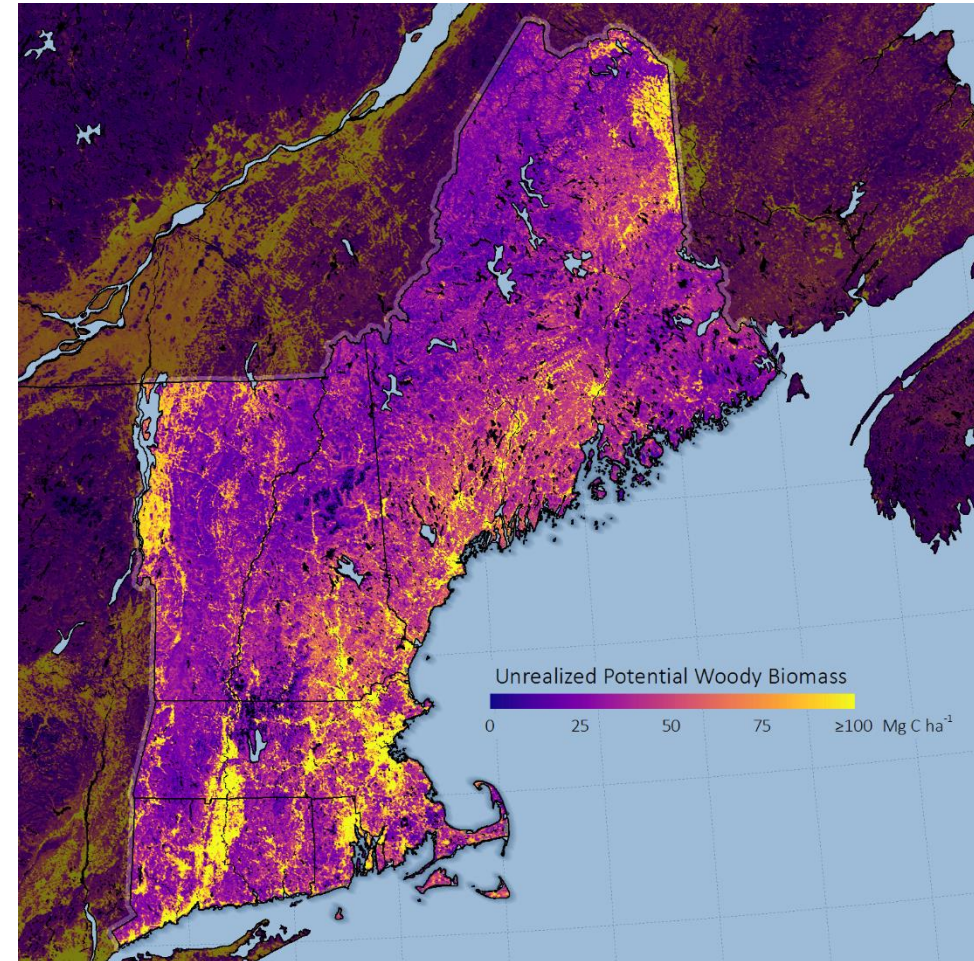
Woody biomass = 1600 million tons C



# Carbon debt of New England



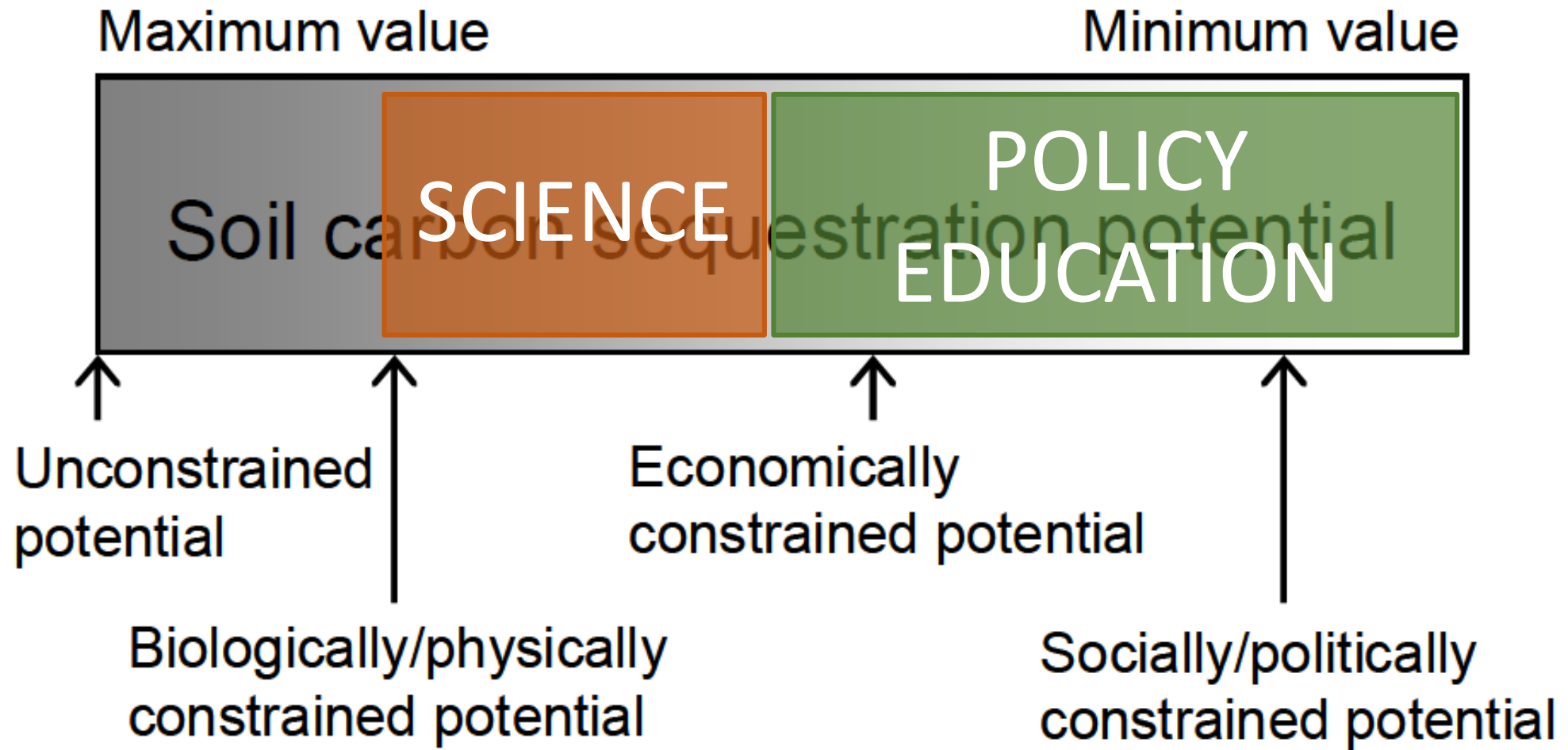
Soil = 210 million tons C



Woody biomass = 660 million tons C



# How much of this potential can be realized?





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Example 1: Sowing perennials into annual dominated pastures

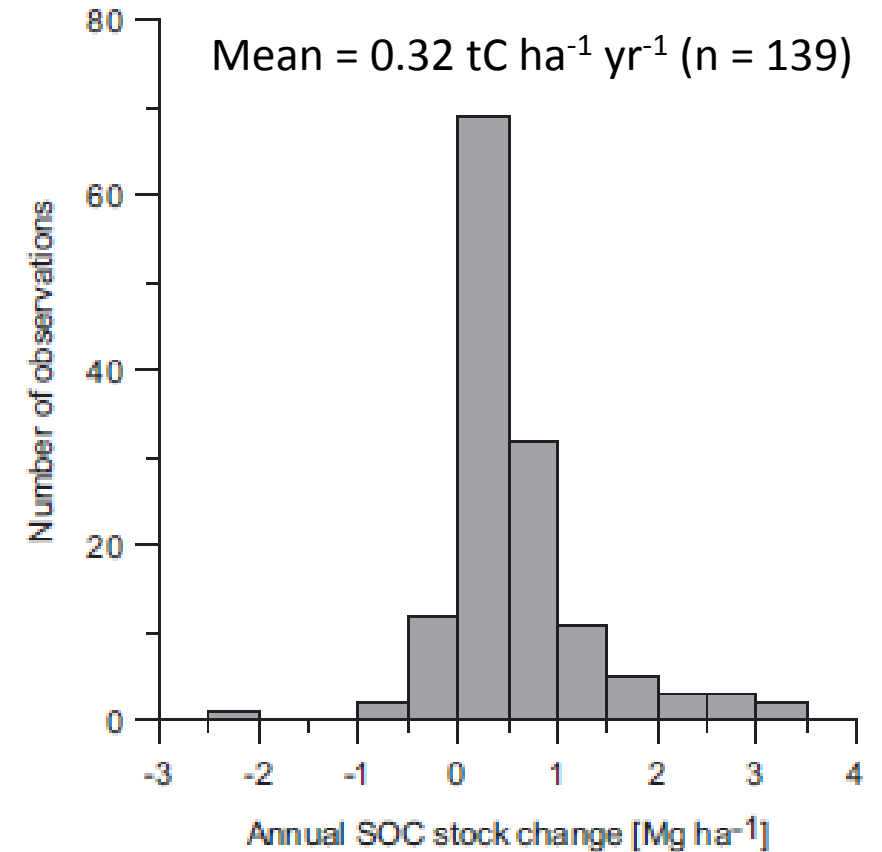


Sequestration rates varied by: Species, Soil type and Climate zone



# How much of this potential can be realized?

## Example 2: Cover crop meta-analysis





# Science is slow relative to innovation

Steve Groff Retweeted



**SDSHCoalition** @SDSHCoalition · 19h

Dan Forgey "it's all about Carbon! We are carbon farmin'" Discussing the importance of returning carbon and organic matter back to the Soil.  
#SoilHealth18



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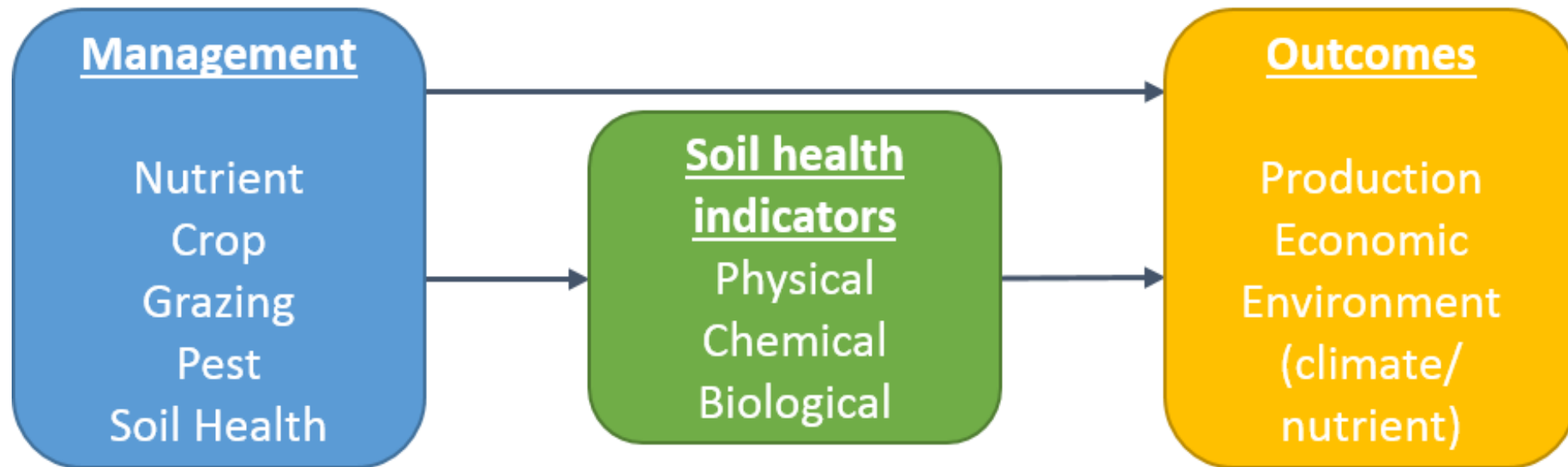


**Machine Seeds Cover Crops, Injects Hog Manure in One Pass**



# Focus on soil health and sustainability

What role does soil carbon improvement play in moderating agronomic outcomes?



# Take away messages

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Thank you.

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