

. Michelle Perez: Is there sound yet? thru voip

* Candy Thomas(privately): Michelle Perez Try refreshing your screen if you are having trouble with audio

Open Questions (16)

3. Jennifer Moore-Kucera: What percentage of the farming population needs to run through a scenario like this vs. just adopting?

There is no set percentage or number of clients needing this type of information, however most are always thinking of how much a particular conservation practice or system will cost and how they need to finance it in light of the other day-to-day or annual expenses they already incur. It behooves us as planners to help them understand the likely costs they may incur and potential benefits they may receive over time.

In light of that, individual clients will benefit from different levels of information, which is how the Conservation Practice Benefit-Cost Templates are set up to develop. The base templates represent a "Level 1" format, which is simply a description of the expected effects. For some clients that is sufficient. Others may need or request more information and the Level 2 provides that information. Still others may request the level 3, and that is the level that many case studies will provide.

The Benefit-Cost "T-Charts" provide planners with a discussion framework in a partial budget format using SWAPA-H criteria. The basic Level 1 conservation practice benefit-cost templates are available at: <https://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/technical/econ/data/?cid=nrcseprd1298864>

These templates contain general talking points about conservation practices for the conservation planner to discuss with the land user and focus on the potential benefits and costs of each conservation practice.

Also, Technical Note ([TN 200-ECN-1 "Basic Economic Analysis Using T-Charts"](#)) explains in more detail how to use the Benefit Cost templates and how they facilitate the 9 steps of Conservation Planning.

4. Don McClure: how does weather mess you up

Regarding agronomic aspects, for example, effects on yields etc., I would seek the opinion of an agronomist, conservation practices technician etc. The Cover Crop (Ac) 340 Conservation Practice Effects template from the presentation makes mention of some weather effects, for example, "In dry climates (less than 20 inches per year) (cover crops) will compete for crop moisture."

Variability in weather and its effects on partial budget items is a good candidate for sensitivity analysis. Recall the worst, typical, best "What If?" scenario aspects of sensitivity analysis. The effects of varying weather assumptions can also be incorporated into the "average future year" analysis, when the analyst has information on the likelihood of wet, drought, and most frequent conditions, and if they have, for example, expected effects on yields for the different conditions.

5. Paul Salon: How is money from government cost share or tax incentives in this type of analysis

For the cover crop analysis, the expected change in profit associated with cover crop versus no covers was calculated using the Biology & Soil Quality, and Erosion Reduction expected increases in revenue values. The CSP payment of \$40,000 was omitted from the profit analysis. Again, for the cover crop example, the expected change in cash income over cash costs associated with covers was calculated by omitting the Biology & Soil Quality, and Erosion Reduction items (non cash benefits) while including the CSP payment \$40,000 (cash income).

For the partial budget of the conservation system, the \$10 per acre per year payment was included in the analysis.

6. Ron Gamble 2: Is this already setup in available software?

There are partial budget templates available on-line. The NRCS Conservation Practice Benefit-Cost Templates, Technical notes and additional resources are available here:

<https://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/technical/econ/data/?cid=nrcseprd1298864>

There are additional NRCS developed economic tools here:

<https://www.nrcs.usda.gov/wps/portal/nrcs/main/national/technical/econ/tools/>

There is another example of an excel partial budgeting template here:

<https://www.extension.iastate.edu/agdm/wholefarm/html/c1-50.html>

7. Brook Gale: When NRCS sets practice cost for payment rate scenarios, do they do this level of cost effectiveness evaluation?

As we are not involved with that process, we cannot answer this question. However, we have sent this question to the Payment Schedule Core Team and have not yet received an answer. We suggest that you contact them directly for clarification of their processes.

8. Don McClure: in the Rulon example, wouldn't delayed planting be a profit reducer in a wet spring?

The Rulon analysis did not identify, mention that specifically. But there is no reason why the approach outlined for partial budgeting could not have identified it. If I am working with a farmer, perhaps NRCS staff, and others, I would expect these items to surface while following the approach. The approach allows for reduced value of production, revenue. The analyst would need to know how many years in 10, for example, would a wet spring occur and then estimate the magnitude of the yield effect, etc. This would fit the content presented on Sensitivity Analysis – develop an analysis for a wet year.

Sometimes, if the average future year estimates are based upon a long enough time period they might capture the effect of this, low yield in a given year drawing down the overall average for the average future year.

Remember, the Rulon example provides an example of following an approach. In my opinion, it is the execution that is flawed, not the approach that I can picture, assume them following.

9. kzoook: The webinar just cut out-- why was the CSP program payment excluded? We might have missed it.

By excluding the CSP program payment from the partial budget for profit, the analysis likely avoided overstating benefits, since the Biology & Soil Quality, and the Erosion Reduction items were used to value expected increases in environmental benefits not necessarily captured in expected yield changes. However, the CSP program payment (cash income) was included in the partial budget for cash available while omitting the Biology & Soil Quality, and Erosion Reduction items.

10. Don Mehlhoff: I can't see a revenue (increased income) from increase in OM. Isn't that already reflected in the increase in yields?

Remember, the Rulon example provides an example of following an approach. As stated, I believe that its execution is flawed. The analysis suggest that the analysts struggled with untangling effects for the analysis, as well as, with providing greater detail regarding assumptions, explanations behind individual items -- in my opinion. Without the benefit of a detailed conversation regarding the analysis, I assumed that the Biology & Soil Quality, and Soil Erosion items captured the non cash, environmental, societal benefits of covers versus no covers not captured in the value of expected increases in yields items.

11. Don Mehlhoff: wouldn't there be a cost in killing the cover crop before planting?

I would expect a cost for some covers, but perhaps not all – for example, radishes versus winter cereals? However, I am not an agronomist. The approach followed in the cover crop analysis has its positive aspects, but its execution is flawed. Your question identifies another item that the analyst should pursue, when analyzing cover crops. I would expect these issues to come up when I am working with a producer, agronomist, conservation tech expert and others.

12. Michelle Perez 2: What methods for corn yields increase and fertilizer saved would you suggest?

Using the cover crop topic as an example, I would seek out data, perhaps on farm research from your state's Land Grant University where farmers might have compared covers versus no covers. In New York, for example, Cornell University's Nutrient Management Spear Program led by Professor Quirine Ketterings leads an on farm research partnership where farmers follow guidelines to produce information.

I have not developed an analysis for cover crops versus no covers from scratch to be sure about suggestions. I am not sure what path such an analysis would follow regarding data to support the item by item approach to identifying expected changes in revenues and costs.

13. Brook Gale: Does NRCS/planners hold any liability if our partial budgets are inaccurate and causes financial burden on producer?

Partial budgets are rarely, if ever expected to be completely accurate due to the fact that so many variables cannot be accounted for, hence should never be presented as absolutes. They are a tool to help set up a discussion framework. The Benefit-Cost "T-Charts" provide planners with a discussion framework in a partial budget format using SWAPA-H criteria. The basic Level 1 conservation practice benefit-cost templates are available at:

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California has had resistance to cover crop adoption because some aspects of adoption in intensive cropping systems in arid (water poor) climate were not anticipated

The Cover Crop (Ac) 340 Conservation Practice Effects template from the presentation makes mention of some weather effects, for example, "In dry climates (less than 20 inches per year) (cover crops) will compete for crop moisture."

14. Trevor Wallace: great job with the presentation John

Thank you.

15. C.D. Gage: Thnx for the presentation...

You are welcome.

16. Brook Gale: Who can NRCS planners contact to get economic evaluation assistance?

You can find a directory of NRCS Economists here:

<https://www.nrcs.usda.gov/wps/portal/nrcs/detailfull/national/technical/econ/?cid=stelprdb1044188>

Any of the NRCS Regional Technology Support Center Economists may be able to assist you as well depending upon your needs.

17. Trevor Wallace: thank you

You are welcome.

18. Brook Gale: Can field staff develop their own tools for assessing cost effectiveness? If so, who needs to vet them?

Yes, field staff can develop their own tools for assessing cost-effectiveness and there is no policy or procedure for review at this time. That being said, one must always be very careful when providing technical assistance to a client to assure that misinformation is not provided. All NRCS conservation planners are required to take the "Economics of Conservation Planning" course either through NEDC, or State sponsored as a part of their planning certification. This class provides more in-depth economic training for planners. Additional tools that may be useful and were developed by NRCS economists can be found here: <https://www.nrcs.usda.gov/wps/portal/nrcs/main/national/technical/econ/tools/>