

2023 Farm Bill: Environmental issues and the carrot or stick dilemma

The scope of wildfires in New Mexico and reduced water availability for household and agricultural uses in both the Colorado River basin and California's Central Valley provide clear examples of a level of environmental risk that would have been unthinkable a couple of decades ago when we began writing this column.

At that time, there were many in the agricultural community who were skeptical about the role of humans in the increase in the average annual global temperature, preferring to believe that the temperature shift was due to natural causes. Underlying the skepticism of many was the fear that the talk about a human-induced temperature increase was simply a pretext for the adoption of more regulations on the way they carried out their farming and ranching operations.

As we look forward to the crafting of the 2023 Farm Bill, there is little doubt that environmental issues and global climate change will be front and center. Over the last 70 years, roughly 50 percent of US acres have been devoted to cropland and pasture and range grasslands. As a result, the direct and indirect effects of global warming will be directly felt by US farmers and ranchers.

If for no other reason than the potential magnitude of the impact of climate change on ranching and farming, environmental issues will be front and center in farm bill discussions.

At this point in the farm bill process, our interest is less about the specifics of various policy goals and more about the mechanisms that might be used to implement these policies. In examining potential incentives that might be used to achieve the desired environmental policy objectives, do we use carrots (payments) or sticks (regulations) or a combination of the two?

We are sure that most farmers would prefer payments over regulations, so let's look at that option.

For our illustration let's hypothesize that goal of the policy is to reduce the net carbon equivalent (CO₂E) emissions from a farming operation and the government makes payments for a given unit of net reductions. This reduction can be achieved by reducing direct CO₂E emissions from farm operations, by increasing the sequestration of carbon in the soil, or a combination of the two.

Furthermore, let's hypothesize two farmers.

Farmer A inherited his farm from his mother who operated the farm after the death of her husband. In both generations, the goal of the farming operation has been to maximize profits, giving little heed to the CO₂E footprint required to achieve this goal.

Farmer B inherited her farm from her father and followed in his footsteps. Her father was one of the first farmers in his county to implement a wide set of conservation practices that has reduced the CO₂E footprint of the operation over a period of 30 years while providing a modest, but livable, income. She has continued her father's practices while introducing new ones.

If to achieve and sustain a given level of CO₂E reduction, the proposed farm environmental policy is designed to provide a given level of payment (a carrot) for each unit of reduction. Given that farm A is larger than farm B, it is clear that farm A is eligible for a larger set of payments than farm B.

But more than that, because farm A has done little in the past, its CO₂E footprint per unit of production is larger than that of farm B and thus it has the potential to claim larger payments because of its past practices.

Do we pay farmer A to make the initial easy reductions that farmer B and her father have already done? Do we credit farmer B for the reductions made in the past even they do not represent a net reduction in the present?

Do we establish environmental regulations and practices (a stick) that farmer B already meets, but will weigh heavily on farmer A's operation?

The answer to this dilemma is not obvious, but it is clear that if we are to address environmental issues including climate change, we are going to have to wrestle with finding the right combination of carrots and sticks.

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