

CASE ONE – SIDEROLLS



Photo by Joel McNee, USDA Natural Resources Conservation Service

This narrative is from a cow-calf producer in Natrona County, in the Kendrick area.

BACKGROUND.

It is difficult to come up with the individual electrical power costs for the three sideroll sprinkler systems. Currently we are operating with all three systems with positive head pressure at the pump inlets. These pressures run approximately 18, 20 and 27 pounds per square inch (PSI) for each of the three systems. This saves power costs, but also each of siderolls covers a different size field, from 32 to 62 to 64 acres. The electric meter reading on the 32 acre system wouldn't be representative, since power for a 55 acre pivot flows through the same meter.

ADVANTAGES

The number one advantage is we can do a really good job of irrigating and can raise good hay under siderolls.

I wish they were all center pivots but center pivots wouldn't fit these particular fields. As is, we are raising good crops on rolling fields, (not suited for flood irrigation) with good water efficiency.

DISADVANTAGES

It requires specific timing and dedication, similar to having a bunch of milk cows! Any operator considering sideroll irrigation should be aware of the timing and commitment required.

Labor required from the time you get to the field until changes are complete and running again will average about one hour under optimum conditions. Using a four wheeler can save a little time and a whole lot of walking back and forth from the pump to the mainline valves, moving hoses and hydrants, cleaning the screen, the pump, going back to move the siderolls and hook up (after completely drained) and back to the pump. It takes two changes per day. So, not counting time traveling to and from the field, an estimated two hours per day minimum, for one person, with real good luck!

Rolling and uneven terrain can cause misalignments that require lots of walking to re-align. This can add another 10 or 20 minutes per change. Dropping off sections, or adding sections of sideroll pipe on non-rectangular fields, can add another 10 or 20 minutes. Removing and replacing a section to go around a power pole or obstruction in the field can add another 10 or 20 minutes. Rolling the sprinkler line (or lines) can take up to 1 ½ to 2 ½ hours to roll it back to start over the field again from the beginning. Needless to say, more time is required on everything if the ground is newly farmed with ankle deep mud. If there are two moves per field (such as ours- with each move rolling 800 or 900 feet of pipe) add another 20 minutes or so, per move.

When rolling back to start over on a field it pays to have two people to help with alignment of the sideroll and make it go quicker. Sometimes there is maintenance such as adjustment or replacement of sprinklers, or the drains on the sideroll pipe.

The nickel plated roller chains on the movers need to be replaced every 2 or 3 years even with use of lots of spray cans of chain lube. Four wheelers aren't cheap, but they save a lot of time and walking. Some expense should be included for four wheeler operation.

Sometimes couplers will break on the sideroll line. It's pretty exciting to be repairing a coupler when a gust of wind rolls several hundred feet of pipe away faster than you can run and breaks two or three more joints and wraps it around a fence post.