

Conservation Cropping Protocol

Summary

- Carbon payments for conservation farming carry on, with the price increasing somewhat in the 2016 year
- The carbon harvest amount ranges from approximately a tenth to a twentieth of a tonne per acre
- Having and providing the right records is key

Carbon Harvest from No Till Seeding

The 'carbon harvest' for Alberta producers direct seeding works out to around 0.113 tonnes/acre/yr in the Parkland and 0.057 in the Dry Prairie areas for the no till seeding category of soil disturbance. Irrigated areas in the Dry Prairie harvest carbon at the Parkland rate. Example calculations:

Parkland area

1000 acres X 0.113 tonnes/acre = 113 tonnes carbon

113 tonnes carbon X \$13.00/tonne = \$1469 or \$1.47/acre

Dry Prairie area

1000 acres X 0.057 tonnes/acre = 57 tonnes carbon

57 tonnes X \$13.00/tonne = \$741 or \$0.74/acre

'No Till' has disturbance specifications of one pass of an opener with up to 46% soil contact, or two passes of an opener (either seeding, fertilizing, or applying manure) of up to 38% soil contact. Up to 10% discretionary tillage in each field is allowed to manage ruts in unseeded wet areas, etc. The former 'Reduced Till' category is no longer eligible.

Record Keeping

The summary below gives an idea of the records a producer needs to collect. For the exact requirements see an aggregation company.

1) Crop: Annual crop or seeding year of a perennial.

- detailed farm record sheets or crop plan, together with *either*:
 - crop insurance
 - a location linked time-stamped photo
 - other records which may include P.Ag. sign off.

2) Seeding/Fertilizing Implement:

- calculation of soil contact, together with *either*:
 - equipment receipts
 - time-stamped photos showing opener width and shank spacing

- other records which may include P.Ag. sign off.

3) Land and Carbon Ownership/Arrangement:

- land title certificate, and signed contract with the carbon project developer. If rented:
 - a signed agreement stating who (renter/landowner) gets the carbon rights

4) Location and Size of Field: Seeded field area from *either*:

- Google Earth
- air photos or satellite data
- GPS track files from seeding equipment
- GPS shape files from field inspection.

5) Field Operations:

- record sheet showing all land disturbance operations, with equipment specifications and *either*:
 - proof of the specific equipment used
 - other records, which may include P.Ag. sign-off
- yes or no for discretionary tillage. If yes, then proof of area worked up, *either*:
 - calculation on farm record sheet
 - GPS readings from farm equipment

Extras

6) Reseeding: If disturbance is still under allowable amounts, *either*:

- equipment specs and seeding dates
- other records with P.Ag. signoff

7) If in the Dry Prairie and irrigating, two of the following:

- water use records
- air photos or satellite images of pivots
- Alberta Irrigation Program documents
- detailed farm irrigation maps
- crop insurance records showing use of irrigation,
- GPS time stamped photos of equipment used, with model information

or

- other records with P.Ag. sign off.

Link to the whole Conservation Cropping Protocol (CCP) with more details:

<http://aep.alberta.ca/climate-change/guidelines-legislation/specified-gas-emitters-regulation/documents/ProtocolConservationCropping-Apr2012.pdf>

Link to the soil boundary line between Parkland and Dry Prairie areas:

[http://www1.agric.gov.ab.ca/\\$department/deptdocs.nsf/all/c111708](http://www1.agric.gov.ab.ca/$department/deptdocs.nsf/all/c111708)

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The information contained here is the interpretation of Alberta Agriculture and Forestry. Alberta's carbon offset system is managed by Alberta Environment and Parks. Offset projects must comply with the most recent quantification protocols and program requirements published by Environment and Parks at:

<http://aep.alberta.ca/climate-change/guidelines-legislation/specified-gas-emitters-regulation/offset-credit-system-protocols.aspx>