Financial Support for Conservation Practices: EQIP and CSP

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File A1-39

Agricultural conservation practices are widely accepted to benefit the environment, through improved soil health, water quality, air quality, biodiversity, and multiple other venues. However, the adoption of any conservation practice comes with a cost to the farmer. For example, planting cover crops requires incurring costs related to acquiring seeds, operating farm equipment, spending extra time managing the crop production system, and in some cases, extra costs to terminate the cover crop with additional herbicide prior to planting a cash crop. The most recent official cost estimate for implementing a single-variety cover crop in Iowa is $81.73 per acre, while the national average cost is $82.10 per acre (USDA 2023). Cash and opportunity costs from the adoption of conservation practices have long been recognized as potential barriers to expanding their use (Arbuckle and Roesch-McNally 2015; Pantoja et al. 2015; Gramig and Widmar 2018; Plastina et al. 2018; Plastina et al. 2020; Sawadgo and Plastina 2021).

A wide menu of state and federal government programs as well as private programs provide technical and financial assistance to incentivize the implementation of conservation practices in agricultural working lands (Plastina and Sawadgo 2018). This report provides a simplified review of two major federal financial assistance programs for working cropland.

EQIP vs. CSP

The United States Department of Agriculture (USDA) offers technical and financial support to conservation efforts on working lands benefiting the environment through multiple programs managed by the Natural Resource Conservation Service (NRCS). The two most extensively used NRCS conservation programs are the Environmental Quality Incentives Program (EQIP) and the Conservation Stewardship Program (CSP). The former provides financial assistance for new practice adoption, while the latter focuses on enhancing and/or maintaining the existing conservation efforts. Both programs offer free technical support to farmers to help them develop and implement conservation plans over the contract period, which is typically five years.

EQIP and CSP were designed to address specific "resource concerns," understood as resource conditions that do not meet minimum acceptable standards established by NRCS, including the degradation of the soil, water, air, plant, animal, or energy resource base to the extent that the sustainability or intended use of the resource is impaired (USDA 2019). Consequently, in order for a conservation practice in a particular farm to be eligible for EQIP or CSP support, it **must address a resource concern**. Such determination is made by a local NRCS agent after visiting the farm and learning about the farmer's conservation goals.

Besides addressing a resource concern, program eligibility relies on the distinction between new conservation adoption, conservation enhancement, and maintenance efforts:

- **New conservation adoption** is simply the adoption of conservation practices that had not been recently implemented on the farm under consideration. New conservation adoption is financially supported by both EQIP and CSP. EQIP offers a cost-share rate of up to 75% of the NRCS estimated cost for new adoption, and CSP pays only 10% of such cost as Additional Activity Payments (AAPs). For example, an Iowa farmer who plants cereal rye as a winter cover crop on a particular field for the first time can receive an EQIP payment of $40.86 per acre (50% of the

Written July 2023

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estimated cost)[1] or a CSP-AAP of $8.17 per acre (USDA 2023). Both the EQIP payment and the CSP-AAP depend on the number of units of the conservation practice implemented, #Z (such as the number of new acres in cover crops in the previous example), and their corresponding activity payment rate, $Z: Payment = #Z×$Z.

- **Conservation enhancements** are improved versions of existing conservation practices on the farm under consideration, targeting higher levels of conservation. In addition to supporting new conservation adoption, CSP-AAPs also provide financial support equivalent to 100% of the NRCS cost estimate for **conservation enhancements** (except for cover crop enhancements that are supported at a rate equivalent to 125% of their cost estimates). For instance, farmers who have already implemented cereal rye as a single-species winter cover crop can enhance their conservation activities by using a cover crop mix (such as triticale, crimson clover, and tillage radish) to not only keep the soil in place, but also increase soil organic matter, fix nutrients, and reduce soil compaction.
- Additionally, CSP offers Existing Activity Payments (EAPs) to incentivize **maintenance of existing conservation efforts** (persistence and dis-adoption prevention) and reward farmers for addressing multiple resource concerns. The CSP-EAP rate for a particular farm is calculated from the number of resource concern categories (#RC) times a fixed payment rate ($RC) plus a per-acre payment based on land use: (#RC × $RC) + (#A × $A) + (#B × $B) + …, where #A is acres of land use #1, $A is payment rate for land use #1, #B is acres of land use #2, and $B is payment rate for land use #2 (USDA 2021). For example, an 80-acre farm in Iowa where cereal rye has been planted as a winter cover crop for three years under an EQIP contract to address one resource concern, after the expiration of the EQIP contract it can become eligible to receive CSP-EAPs for $900 per year during the life of the CSP contract if $RC = $300 and $A = $7.50: $900 = (1 × $300) + (80 acres × $7.50).

EQIP only supports the adoption of new conservation practices, while CSP supports all types of conservation activities: new conservation adoption and conservation enhancement through CSP-AAPs, and maintenance efforts through CSP-EAPs.

All EQIP and CSP payments depend on the number of units of the conservation practice implemented and its associated payment rate (which varies across programs, states, farmers characteristics, etc.). Additionally, CSP-EAPs depend on the number of resource concerns met at the time of application and the payment rate per resource concern. A summary of EQIP and CSP payment rates is shown in Table 1.

Table 1. Summary of EQIP and CSP payment rates in 2023

Program	Payment Rate
EQIP:	
New conservation adoption	≤75%
CSP AAP:	
New conservation adoption	10%
Enhancement (except cover crop)	100%
Cover crop enhancement	125%
CSP EAP:	
Cropland and farmstead	$7.50/acre
Pasture	$3.00/acre
Associated Agricultural Land	$0.50/acre
Range	$1.00/acre
Nonindustrial private forest land	$0.50/acre
Resource concerns	$300/RC

Note: The definitions of land use are available, https://www.nrcs.usda.gov/sites/default/files/2022-09/EQIP_Land_Eligibility_and_NPPH_Land_Use_Chart.pdf

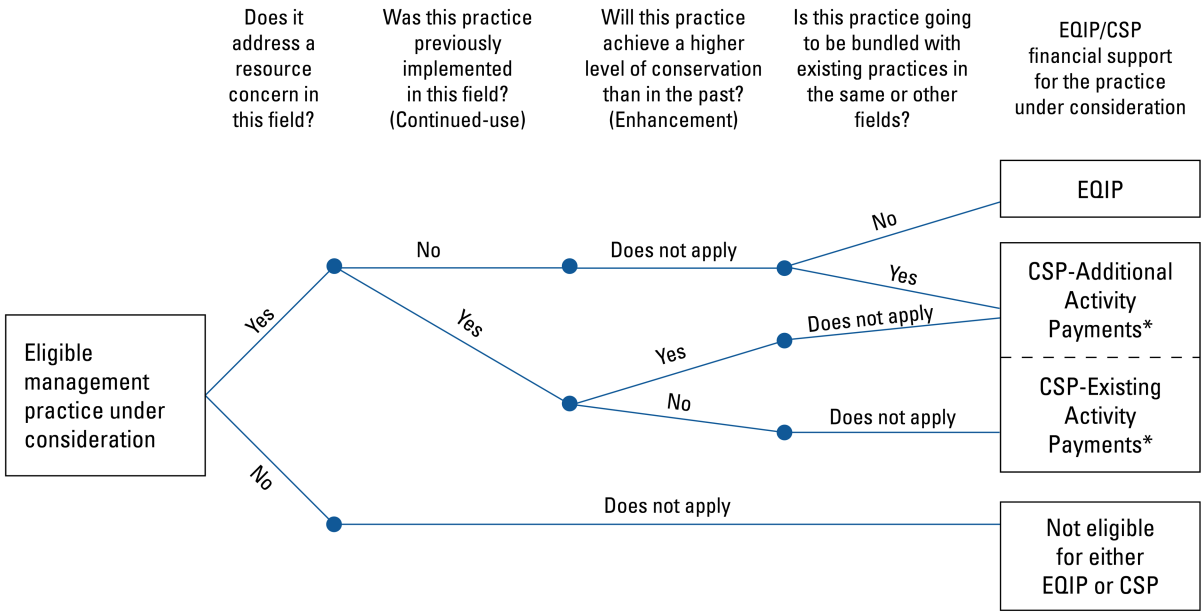
It must be noted that once the EQIP contract expires, the specific practice originally contracted under EQIP can only be considered for a CSP contract if that specific practice still addresses at least one active resource concern at the beginning of the CSP contract. In total, any specific practice can be supported through EQIP and CSP for 10 years. Additionally, multiple EQIP and CSP contracts

[1] Historically underserved farmers are eligible to receive a higher payment rate.

are allowed to coexist in the same field as long as they are contracting different practices and address a resource concern in the enrolled field. The maximum annual payments per entity are $450,000 for EQIP and $200,000 for CSP. In addition, land enrolled in NRCS programs is required to meet highly erodible land conservation (HELC) and wetland conservation (WC) compliance provisions.[2]

A schematic representation of the pathways for EQIP and CSP eligibility is presented in Figure 1. However, since the determination of resource concerns are farm-specific, and the evaluation of how each conservation practice addresses each resource concern is nuanced, we strongly recommend consulting with a local NRCS office before considering application for EQIP or CSP.

Figure 1. Simplified decision path for EQIP and CSP eligibility.



* If the practice is eligible for CSP-AAP, it can be bundled with maintaining existing practices eligible for CSP-EAP in same or other fields. Similarly, if the practice is eligible for CSP-EAP, it can be bundled with new adoption or enhancement of other activities eligible for CSP-AAP in same or other fields. However, the new adoption can be supported through an EQIP contract, which pays higher rates for new adoptions.

[2] In general, these provisions say that certain land is not eligible if it is highly erodible to be designated for conservation use or the agricultural land was converted from a wetland after December 23, 1985.

Examples of Financial Support

The following examples illustrate the amount of financial support for cover crop and no-till use that Iowa farmers could receive from EQIP and CSP contracts over a decade, depending on the timing of the practices, the bundling strategy, and the choice of contracts. Eligibility requirements are assumed to be met.

Photo credit: USDA NRCS

Example 1: Mrs. Jane S. Planner

Farmer Jane operates two 80-acre farms (F1 and F2) in Iowa where nutrients transported to surface water is a resource concern. She has never used cover crops, but is willing to try cereal rye on the 160 acres. The local NRCS office accepts Jane's application for a five-year EQIP contract. Every year after successfully implementing the cover crop, Jane receives an annual payment of $6,537.60 (= $40.86/acre × 160 acres), for a total of $32,688 over the five years. After the EQIP contract expires, farmer Jane submits a CSP application to maintain the same practice in F1 and to enhance the cover crop practice in F2 by establishing a cover crop mix to address the same resource concern at a higher level of conservation. Under the five-year CSP contract, she receives $1,179.20 per year for the cover crop enhancement in F2 and $900 per year for maintaining the single-species cover crop in F1, totaling $10,396 over the life of the contract. Total payments from EQIP and CSP over the 10-year period amount to $43,084.

Table 2. Example 1.

Contract	Practice (NRCS code)	Farm	Acres	Payment per acre	Annual Payment
EQIP (years 1-5)	Basic cover crop adoption (340)	F1+F2	160	$40.86	EQIP: $40.86/acre × 160 acres = $6,537.60
CSP (years 6-10)	Enhancement: Cover crop to reduce water quality degradation by utilizing excess soil nutrients (E340G)	F1	80	$14.74	CSP-AAP: $14.74/acre × 80 acres = $1,179.20
	Maintenance: Basic cover crop (340)	F2	80	$7.50	CSP-EAP: ($7.50/acre × 80 acres) + ($300/RC × 1 RC) = $900

Total payment over years 1-10: $43,084 or $26.93 per acre per year, on average.

Example 2: Mr. Earl Y. Adopter
Farmer Earl operates two 80-acre farms (F3 and F4) in Iowa where soil organic matter depletion is a resource concern. F3 has been no-tilled for more than a decade with no support from NRCS. Earl considers three options to enhance his conservation efforts.

Option A: He applies for CSP to maintain the no-till system and adopt cereal rye as a cover crop on F3. Additionally, he submits an EQIP application for new adoption of no-till in F4. When both contracts expire after five years, he applies for another five-year CSP contract to maintain no-till in both farms while adding cereal rye as a cover crop in F4 and to enhance cover crop use in F3 by planting multi-species cover crops to improve soil health and increase soil organic matter.

> In this case, Earl will receive annual payments of $887.20 for no-till adoption in F4 under EQIP and $1,553.60 (= $653.60 + $900) for new cover crop implementation in the no-till system on F3 under CSP, totaling $12,204 over the five-year contract period. Under a second CSP contract starting in year six, annual CSP-AAPs amount to $653.60 for the new cover crop adoption in F4 and $1,213.60 for the cover crop enhancement in F3, while maintaining no-till in both farms translates into a yearly CSP-EAP of $1,500. In sum, he gets financial support for $3,367.20 per year, or $16,836 over the second half of the decade, and $29,040 over the 10-year period.

Option B: Earl submits two EQIP applications for using cereal rye as cover crop in F3 and no-till in F4, while maintaining no-tillage in F3 without direct financial support. The EQIP contracts end after five years, and then he applies for a five-year CSP contract to maintain no-till in both farms and change from a single-variety cover crop in F3 to a multi-species cover crop (an enhancement). In addition, Earl adopts cereal rye as cover crop under another EQIP contract in F4, where nutrients transported to surface water is an active resource concern.

> Over the first five years, Earl receives annual EQIP payments for $4,156 (= $887.20 + $3,268.80) for new adoption of no-till in F4 and cover crop in F3, totaling $20,780 over the contract period. Starting in year six, he gets an annual payment of $3,268.80 for the adoption of a single-variety cover crop in F4 under the second EQIP contract. Furthermore, the CSP-AAP for enhancing cover crop in F3 amounts to $1,213.60 per year and the CSP-EAP for maintaining no-till is $1,500 per year. Altogether, Earl receives $5,982.40 per year in years 6-10, or $29,912 over the five-year period. Over the 10 years, Earl receives financial support for a total of $50,692.

Option C: Earl participates in CSP by maintaining no-till and adding cereal rye as a winter cover crop in F3, and by adopting no-till in F4. After the first contract expires, he renews the CSP contract by maintaining no-till in both farms, adopting cereal rye as a cover crop in F4, and enhancing the cover crop practice in F3 to a multi-species mix.

> Under the first CSP contract, Earl receives $653.60 for cover crop adoption in F3, $177.60 for no-till adoption in F4, and $900 for no-till maintenance in F3. In total, he receives $1,731.20 per year or $8,656 over the five-year contract period. During the second five-year CSP contract, annual financial incentives amount to $653.60 for cover crop adoption in F4, $1,213.60 for cover crop enhancement in F3, and $1,500 for practice maintenance in both farms, totaling $3,367.20 per year and $16,836 over the life of the contract. Over the entire decade, both CSP contracts support Earl's efforts with $25,492.

Table 3. Example 2.

Contract	Practice (NRCS code)	Farm	Acres	Payment per acre	Annual Payment
OPTION A					
EQIP (years 1-5)	No till adoption (329)	F4	80	$11.09	EQIP: $11.09/acre × 80 acres = $887.20
CSP (years 1-5)	New adoption: Basic cover crop (340)	F3	80	$8.17	CSP-AAP: $8.17/acre × 80 acres = $653.60
	Maintenance: No till (329)	F3	80	$7.50	CSP-EAP: ($7.50/acre × 80 acres) + ($300/RC × 1 RC) = $900
CSP (years 6-10)	New adoption: Basic cover crop (340)	F4	80	$8.17	CSP-AAP: $8.17/acre × 80 acres = $653.60
	Enhancement: Use of multi-species cover crops to improve soil health and increase soil organic matter (E340C)	F3	80	$15.17	CSP-AAP: $15.17/acre × 80 acres = $1,213.60
	Maintenance: No till (329)	F3+F4	160	$7.50	CSP-EAP: ($7.50/acre × 160 acres) + ($300/RC × 1 RC) = $1,500
Total payment over years 1-10: $29,040 or $18.15 per acre per year, on average.					
OPTION B					
EQIP (years 1-5)	No till adoption (329)	F4	80	$11.09	EQIP: $11.09/acre × 80 acres = $887.20
	Basic cover crop adoption (340)	F3	80	$40.86	EQIP: $40.86/acre × 80 acres = $3,268.80
EQIP (years 6-10)	Basic cover crop adoption (340)	F4	80	$40.86	EQIP: $40.86/acre × 80 acres = $3,268.80
CSP (years 6-10)	Enhancement: Use of multi-species cover crops to improve soil health and increase soil organic matter (E340C)	F3	80	$15.17	CSP-AAP: $15.17/acre × 80 acres = $1,213.60
	Maintenance: No till (329)	F3+F4	160	$7.50	CSP-EAP: ($7.50/acre × 160 acres) + ($300/RC × 1 RC) = $1,500
Total payment over years 1-10: $50,692 or $31.68 per acre per year, on average.					
OPTION C					
CSP (years 1-5)	New adoption: Basic cover crop (340)	F3	80	$8.17	CSP-AAP: $8.17/acre × 80 acres = $653.60
	New adoption: No till (329)	F4	80	$2.22	CSP-AAP: $2.22/acre × 80 acres = $177.60
	Maintenance: No till (329)	F3	80	$7.50	CSP-EAP: ($7.50/acre × 80 acres) + ($300/RC × 1 RC) = $900
CSP (years 6-10)	New adoption: Basic cover crop (340)	F4	80	$8.17	CSP-AAP: $8.17/acre × 80 acres = $653.60
	Enhancement: Use of multi-species cover crops to improve soil health and increase soil organic matter (E340C)	F3	80	$15.17	CSP-AAP: $15.17/acre × 80 acres = $1,213.60
	Maintenance: No till (329)	F3+F4	160	$7.50	CSP-EAP: ($7.50/acre × 160 acres) + ($300/RC × 1 RC) = $1,500
Total payment over years 1-10: $25,492 or $15.93 per acre per year, on average.					

Actual vs. Intended Cost-Share

EQIP and CSP offer cost-share payments to support the implementation of conservation practices, and agricultural producers are expected to bear a portion of the implementation cost. Program payments are calculated based on NRCS cost estimates, which are intended to reflect regional differences in farm management practices and local costs. However, actual implementation costs incurred by an individual farmer can be higher (lower) than the NRCS cost estimate. If that is the case, then the NRCS payment will cover a smaller (higher) percent of the actual costs compared to the intended cost-share percent for a typical farm. In sum, the actual cost-share can be lower (higher) than intended by NRCS.

Disclosure

This publication is not intended to encourage or discourage enrollment in EQIP or CSP, but to inform agricultural stakeholders about those programs.

Acknowledgments

This article was supported in part by the USDA Economic Research Service (ERS) Cooperative Agreement Award 026522. The authors are grateful to Kelvin Leibold, for insightful comments to an earlier version of this report; Ann Johanns for editorial support; and Andrew Rosenberg and Benjamin Gramig at the USDA-ERS for stimulating inquiries on related topics. Program Leaders at the Iowa State Office of the USDA Natural Resources Conservation Service were invited to provide feedback on an earlier version of this report. The findings and conclusions in this report are those of the authors and should not be construed to represent any official USDA or US Government determination or policy.

References

Gramig, B.M. and N.J.O. Widmar. 2018. Farmer Preferences for Agricultural Soil Carbon Sequestration Schemes. Applied Economic Perspectives and Policy, 40, 502-521. doi:10.1093/aepp/ppx041.

Pantoja, J.L., K.P. Woli, J.E. Sawyer, and D.W. Barker. 2015. Corn nitrogen fertilization requirement and corn–soybean productivity with a rye cover crop. Soil Science Society of America Journal, 79, 1482–1495.

Plastina, A., F. Liu, F. Miguez, and S. Carlson. 2020. Cover crops use in Midwestern US agriculture: Perceived benefits and net returns. Renewable Agriculture and Food Systems, 35(1), 38-48. doi:10.1017/S1742170518000194.

Plastina, A., F. Liu, W. Sawadgo, F. Miguez, S. Carlson, and G. Marcillo. 2018. Annual Net Returns to Cover Crops in Iowa. Journal of Applied Farm Economics, 2(2), Article 2. doi: 10.7771/2331-9151.1030.

Plastina, A. and W. Sawadgo. 2018. Cost-share programs for cover crops available to Iowa Farmers in 2018. Ag Decision Maker 2(12), 1-3.

Sawadgo, W., and A. Plastina. 2021. Do cost-share programs increase cover crop use? Empirical evidence from Iowa. Renewable Agriculture and Food Systems, 36(6), 527-535. doi:10.1017/S1742170521000132.

U.S. Department of Agriculture. 2019. "National Resource Concern List and Planting Criteria." Natural Resources Conservation Service. directives.sc.egov.usda.gov/OpenNonWebContent.aspx?content=44299.wba. Last accessed March 29, 2023.

U.S. Department of Agriculture. 2021. "Title 440-Conservation Programs Manual, Part 530 – Subpart Q Conservation Stewardship Program (CSP)." Natural Resources Conservation Service. directives.sc.egov.usda.gov/OpenNonWebContent.aspx?content=47243.wba. Last accessed March 29, 2023.

U.S. Department of Agriculture. 2023. "Payment Schedules (Rates) by State." Natural Resources Conservation Service. www.nrcs.usda.gov/getting-assistance/payment-schedules.

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