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Evolution of U.S. Federal Crop-Insurance Plans

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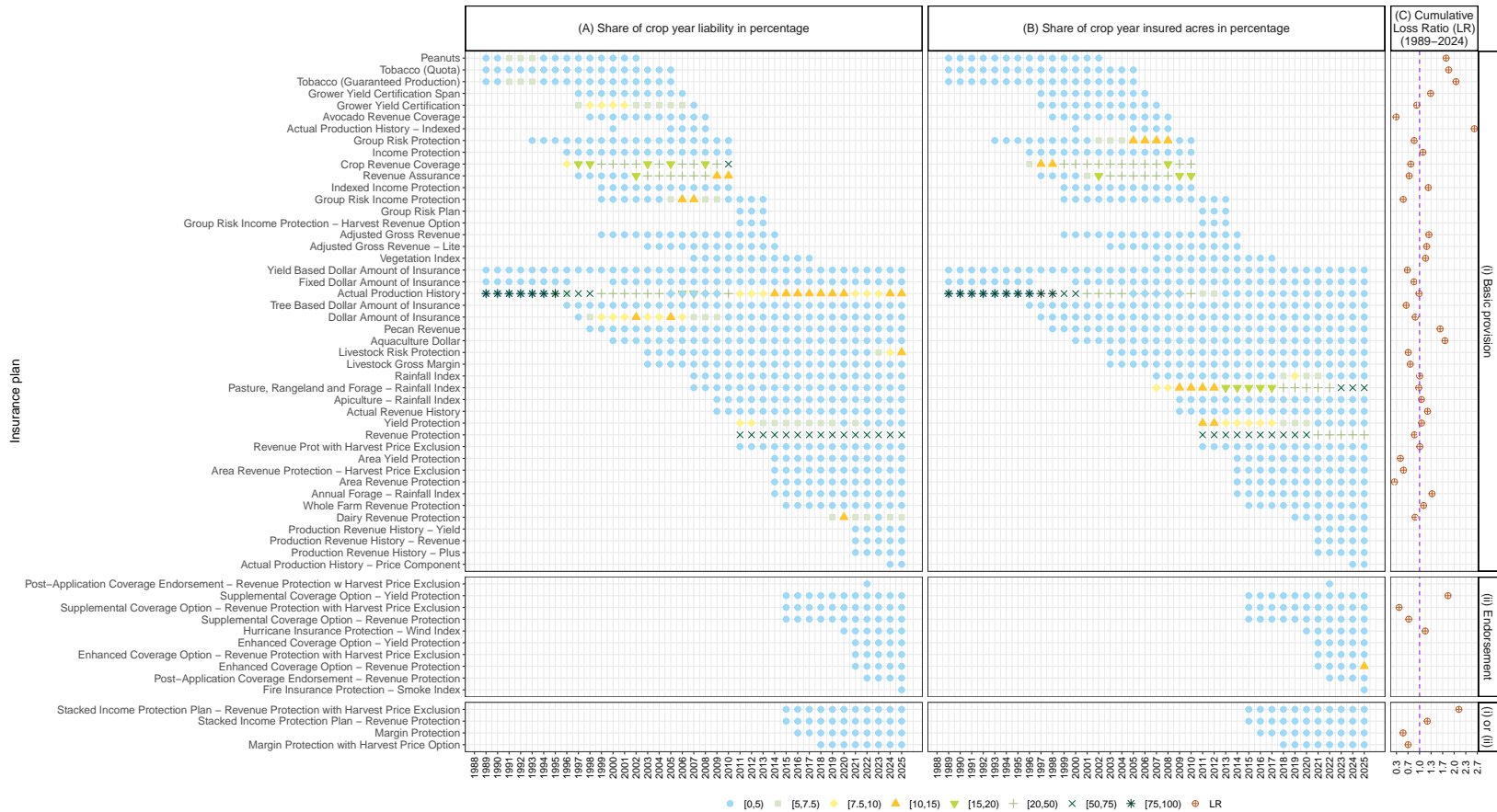
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Producers that purchase a crop insurance policy within the Federal Crop-Insurance Program (FCIP) must choose from several options that ultimately define the policy. These include which insurance plan to enroll in, a coverage level for the plan, and which unit structure to choose. The combination of these choices alters the properties of the final insurance policy, allowing a producer to customize their policy to fit their unique risk management needs. This brief will explore the historical evolution in participation and actuarial performance patterns among insurance plans.

The FCIP offers a range of crop insurance plans including the individual-based basic plans, which are priced and indemnified based on the actual on-farm production history of the individual producer. This contrasts with index and area-based basic plans, which rely on indices which track outcomes over a broader spatial area for purposes of determining indemnification and pricing of the product. Supplemental plans and endorsements are combined with basic individual-based basic plans to enhance coverage.

Figure 1 tracks every FCIP plan offered since 1989. It marries three data layers including first year of availability, annual share of national liability and acreage, and long-run cumulative loss ratio (LR), into a single, vertically stacked timeline. The result is a map of how the policy menu grew from 8 active plans in 1989 to 35 basic or endorsement plans in 2024 (36 in 2025), even as financial exposure became ever more concentrated.

Figure 1: Historic Overview of U.S. Federal Crop Insurance Plan Offerings, Participation, and Actuarial Performance.



Source: Agricultural Risk Policy Center (ARPC), using data from USDA Risk Management Agency as of 2025-12-19..

Yield protection's long eclipse: Through the early 1990s, individual yield-based plans aimed at protecting yields accounted for most liability (primarily through participation in the Actual Production History (APH) plan), peaking at an estimated 84.3% share in 1989. In 1996 new plans, including the Crop Revenue Coverage (CRC), Income Protection (IP) and Revenue Assurance (RA) plan were introduced, which was the first time farmers could protect themselves from both low yields and low prices. Demand for revenue coverage grew faster than for yield-only policies in every year thereafter.

The COMBO products: Congressional reforms in 2011 merged APH, CRC, IP and RA into three streamlined “COMBO” plans: Yield Protection (YP), Revenue Protection (RP), and Revenue Protection with Harvest-Price Exclusion (RP-HPE). Adoption was immediate. By crop-year 2014, RP alone represented 71.2% of total liability in the FCIP, and as of 2024 it was at 54.5%. YP and RP-HPE account for 14.7% of 2024 liability.

County-level and margin products: cheaper but riskier: To complement farm-level COMBO plans, RMA introduced Area Yield (AY), Area Revenue (AR, AR-HPE) and later Margin Protection (MP, MP-HPE) starting in 2014. Although these plans offer lower premiums (about 3 cents per dollar of liability below COMBO products for comparable liability), the lower premium rates come with the trade-off that the county or margin index can diverge sharply from a farmer's own on-farm outcomes, a phenomenon known as “**basis risk**”. That trade-off partly explains why all area + margin plans combined captured only 2% of national liability over the last decade (2015-24); and in 2024 jointly sits at only 2.1%.

A turn toward layering, not multiplying, coverage: Since the 2014 Farm Bill, a trend has emerged that focuses on “layering” new endorsements onto base plans. These plans typically “stack” atop APH/YP/ RP/ RP-HPE and activate for “shallow losses” that typically would not be large enough to surpass the deductible of the base insurance policy.

The endorsements that were active in 2025 include:

- ⇒ Supplemental Coverage Option (SCO) [first available in 2015]
- ⇒ Stacked Income Protection (STAX) [2015]
- ⇒ Margin Protection (MP) [2016]
- ⇒ Hurricane Insurance Protection-Wind Index (HIP-WI) [2020]
- ⇒ Enhanced Coverage Option (ECO) [2021]

⇒ Post-Application Coverage Endorsement (PACE) [2022]

⇒ Fire Insurance Protection - Smoke Index (FIP-SI) [2025]

Together these plans represent only 4.2% of 2024 liability. The supplemental endorsement with the largest share of participation as of 2024 was the ECO plan with 15.7 million acres enrolled (representing approximately 33.22% of all acreage insured under a supplemental plan). With respect to the distribution of insured acreage in 2024, following ECO was SCO at 25.67%, HIP at 21.42%, STAX at 12.35%, MP at 7.32%, and PACE at 0.01%. Although ECO had a relatively small amount of insured acreage as of 2024, liabilities were the highest at \$3.4 billion (representing 42.25% of insured liabilities in supplemental plans). Following ECO was HIP at 23.67%, SCO at 14.32%, ECO at 10.82%, and STAX at 8.94%.

Livestock and forage: the fastest movers: In addition to insurance protection for crops, the FCIP also offers livestock insurance plans which have seen substantial growth over the last decade with the Livestock Risk Protection (LRP), Livestock Gross Margin (LGM), Dairy Revenue Protection (DRP) and Pasture-Rangeland-Forage (PRF), being among the most prominent offerings today. Liabilities associated with livestock plans increased from about \$1.5 billion in 2011 to \$39.7 billion in 2024, primarily driven by significant changes in how these plans were funded starting from the 2019 crop year.

Actuarial performance by plan group: most stable, some strained: Loss ratios, which represent indemnities relative to premiums, reveal a generally healthy actuarial balance across much of the crop insurance portfolio with most groups of plans having cumulated loss ratios near 1. As a group, the observed loss ratios are 0.87 for individual commodity plans, 0.86 for livestock plans, 0.81 for endorsement plans (such as SCO and STAX), 0.67 for area-based plans, 0.79 for dollar-based plans, 1.07 for index-based plans (such as PRF), and 1.22 for Whole Farm Revenue Protection. However, as depicted in figure 1, within each group, loss ratios for individual plans can vary substantially.

Portfolio geometry: broad menu, concentrated risk: From 1989-2024 the FCIP offered 57 distinct plans (44 basic, 9 pure endorsements, 4 dual-use). Yet as of 2024 more than half of all liability resides in a single plan (RP), underscoring how menu breadth does not necessarily translate into risk diversification. The government's fiscal exposure is now dominated by correlated price swings rather than idiosyncratic yield shortfalls.

Policy considerations: The figure's time-lapse suggests incremental refinement, not further proliferation, is the path to a sturdier safety net. Tightening rates on chronically loss-making niches (e.g., Aquaculture Dollar, PRF in drought-prone regions) would free up subsidy dollars to encourage uptake of actuarially

sound but under-subscribed endorsements or margin contracts. Conversely, revisiting the pricing of plans like Area Revenue could make them more attractive and dilute portfolio concentration, without adding additional insurance plans to an already extensive offering.

About the Agricultural Risk Policy Center

The Agricultural Risk Policy Center at North Dakota State University conducts independent, evidence-based economic research to inform agricultural policy and strengthen the U.S. farm safety net. The Center's work focuses on evaluating risk management tools such as crop insurance and disaster assistance, analyzing market disruptions, and providing timely insights that support producers, policymakers, and industry leaders.

ARPC Briefs communicate the outcomes of this research by presenting data, methods, and findings in a structured format. Designed to make rigorous analysis accessible, these briefs translate complex economic issues into clear insights that enhance understanding and support evidence-based decisions, contributing to the resilience and long-term prosperity of U.S. agriculture.

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