

Current state of carbon pricing and supplier engagement

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Introduction

Carbon insets (generated within the supply chain) and carbon offsets (generated outside of it) have been commonly used in food and agriculture to abate carbon impacts and support the long-term health of soils, farms, and communities.

Deloitte set out to better understand the current state of carbon pricing in food supply chains and supplier engagement strategies commonly used among US-based companies. In March 2025, we surveyed 51 industry leaders across agriculture, food and beverage, foodservice, and grocery with sustainability commitments on the actions they are taking to progress against these goals. The survey included questions regarding the use of financial incentives to monetize the benefits of on-farm practices, specifically through carbon insets and offsets in nine supply chains: corn, soy, wheat, rice, dairy, beef, pork, poultry, and fruits and vegetables. See the appendix for more information about the methodology and respondent profiles.

The survey results provide insights into trends and opportunities around carbon pricing, value chain collaboration, and supplier engagement:

Carbon pricing

- The data revealed a wide range in prices for both insets and offsets, indicating a lack of standardization and transparency in carbon pricing. In addition, some respondents reported paying nothing for insets and offsets. For example:
 - For **beef insets**, prices ranged from **\$0 to \$550** per MT CO₂e^a
 - For **wheat offsets**, prices ranged from **\$0 to \$500** per MT CO₂e
- Despite the broad spread of carbon prices reported, in most cases, respondents converged around a narrower range of prices. For example, **more than 70% of respondents paid \$20 or less on the low end and up to \$100 on the high end for animal protein insets** per MT CO₂e (including beef, dairy, poultry, and pork), despite absolute maximum inset prices reaching \$400 (dairy) and \$550 (beef) per MT CO₂e.

- **Surveyed processors are paying 28% more for insets and 32% more for offsets than the survey average, while retailers are paying 87% less for insets and 83% less for offsets than the survey average.**

Value chain

- Surveyed processors and retailers also diverge on the length of contracts they offer suppliers. **While 43% of processors offered suppliers contracts lasting three or more years, only 25% of retailers did the same.**

Supplier engagement

- The data also revealed differences within organizations on their approach to supplier engagement on sustainability. For example, **70% of respondents belonging to the sustainability function viewed long-term offtake agreements as a priority supplier engagement strategy, compared to only 46% of respondents from the procurement function.**

^a MT CO₂e refers to Metric Tons of Carbon Dioxide Equivalent. Throughout this paper, one inset is considered 1 MT CO₂e and one offset is considered 1 MT CO₂e.

Carbon pricing

Respondents were asked to share whether carbon insets and/or offsets are part of their strategies and, if so, the low- and high-end prices they paid. Respondents could indicate whether they used metric tons of CO₂e (MT CO₂e) and/or carbon intensity (CI) scores to evaluate the environmental impact of commodities they sourced. Sixty-five percent of respondents quantified emissions in MT CO₂e, 49% utilized CI scores, and 14% used both. While MT CO₂e is useful for aggregated carbon accounting and regulatory reporting and CI score per product or per acre can be useful for on-farm decision-making, survey responses suggest there is no dominant standard. The use of both metrics may make it challenging to compare inset and offset transactions.

Respondents who procure carbon insets or offsets as part of their emissions reduction strategy disclosed the lowest (minimum) and highest (maximum) prices they paid for each based on the commodities their organization sources.^b The data showed significant variability in carbon prices respondents paid. For example, inset prices for beef ranged from \$0 to \$550 per MT CO₂e while offset prices ranged from \$0 to \$250 per MT CO₂e.¹

Table 1: Inset and offset prices by commodity

		Row crops			
		Corn	Soy	Wheat	Rice
Insets	Min. price	\$0	\$0	\$0	\$0
	Max price	\$225	\$240	\$550	\$400
Offsets	Min. price	\$0	\$0	\$0	\$1
	Max price	\$300	\$250	\$550	\$500
Sample size		n=22	n=23	n=23	n=16

		Animal proteins				Others
		Dairy	Beef	Pork	Poultry	Fruits & veg.
Insets	Min. price	\$0	\$0	\$0	\$0	\$5
	Max price	\$400	\$550	\$300	\$200	\$170
Offsets	Min. price	\$0	\$0	\$0	\$0	\$1
	Max price	\$400	\$250	\$200	\$200	\$65
Sample size		n=27	n=18	n=18	n=20	n=13

^b To solicit pricing data, respondents were asked "What price do you pay for insets and/or offsets for this commodity? Low? High?" for each commodity.

Table 2: Inset and offset pricing summary for row crop and protein

However, survey responses across categories of commodities, including row crops (corn, soy, wheat, rice) and animal proteins (dairy, beef, pork, poultry) showed price clustering that suggests some consistency in prices. For example, approximately 70% of respondents who procured insets/offsets associated with row crops paid less than \$8 for insets and \$15 or less for offsets on the low end, or up to \$30 for insets or offsets on the high end. For proteins, the range of minimum versus maximum prices paid for insets and offsets was wider.

The variability in carbon pricing indicates evolving market maturity and price transparency. This was further underscored by respondents' divided views on whether prices for insets and/or offsets are likely to increase (24%), decrease (27%), or remain the same (27%) over the next year—with 22% uncertain about the future trajectory.

A degree of variability in carbon pricing is expected given inset and offset prices are influenced by several factors, including a project's additionality; the clarity of its baseline emissions; the rigor of its measurement, monitoring, reporting, and verification (MMRV); and the risk of credit reversal.

	Row crops <i>corn, soy, wheat, rice</i>	
	Insets (n=37)	Offsets (n=47)
70% of respondents paid a minimum of...	<\$8	≤\$15
70% of respondents paid a maximum of...	≤\$80	≤\$30
	Proteins <i>dairy, beef, pork, poultry</i>	
	Insets (n=30)	Offsets (n=53)
70% of respondents paid a minimum of...	<\$20	≤\$13
70% of respondents paid a maximum of...	≤\$100	≤\$60