

Carbon Market/Program	Market Philosophy	Companies & Organizations affiliated	Region	Stage of Development	Required product purchase or market relationship	Payment enrollment eligibility contract requirements	GHG Measurements			Water Measurements	
							Soil Organic Carbon	N ₂ O	Energy Use	Water Quality	Water Quantity
Ecosystem Services Market Consortium, ESMC Non-profit	Outcome based- Payments based on change in metrics outlined in protocols	50+ member companies and organizations including National Corn Growers Association	National scale, with regional rollouts - Michigan pilots for water quality, not carbon	Currently in pilot project stage to test protocols, full launch 2022 (participation through pilot sponsors - NRI, General Mills, TFI, TNC, etc.)	No	Price variable by pilot with 3-year lookback. No acreage requirements in pilots, 10-year contract with one 10-year extension allowed	Yes DNDC model	Yes	Yes	Yes APEX model	Yes - Irrigation only
Indigo Carbon Charges 25% transaction fee	Outcome based - Payments based on change in metrics outlined in protocols	Indigo Ag	National - not currently in Michigan	First contracts offered in 2019, current enrollments	No	Estimated \$15/verified credit (estimated 2-3 credits/acre/year). Minimum 150 acres, 5-year contract	Yes Proprietary model	No	No	No	No
CIBO REAP program: Rapid Enrollment, Annual Payment Charges 20% transaction fee	Pay for Practice. More of a direct-to-farmer model (less middlemen)	CIBO Technologies	National	Launched in 2020	Uses satellite imagery to validate practices	No acreage minimum, no contract length (annual re-enroll). \$20 per acre cash payment, ability to set own credit price coming	Yes	Yes	No	No	No
Nori Charges 15% transaction fee	Outcome based - Third party verifiers estimate carbon removal	<i>Unknown</i>	National	Currently in pilot project stage	No	Up to \$15/ton (estimated 0.2-1.5 tons CO ₂ e/a/year). Minimum 1000 acres, 10-year contract	Yes COMET-Farm	No	No	No	No

Bayer	Pay for practice. Compensated <i>per acre</i> , not by amount of carbon stored	Bayer, La Crosse Seed, Soil First Premium Seed	Brazil and U.S. – not currently in Michigan	Launching 2020/2021 season	Yes (Climate FieldView Plus, Bayer Plus account)	5-year lookback for early adopters. Minimum 10 acres, payment at flat rate \$10/acre, 10-year contract	Yes	Yes	No	No	No
TruCarbon	Outcome based - Third party verifiers estimate carbon removal	Truterra - Land O'Lakes, WinField United, Microsoft	Likely national, but unclear	Launched 2021	Must work through Truterra retailers	Minimum enrollment 2.5 acres, 5-year lookback for early adopters, estimated payment \$4-\$15/acre	Yes	Yes	No	Future goal	Future goal
Gradable Carbon	Outcome based - Payments based on change in metrics outlined in protocols. Farmers have flexibility on when to sell Charges 15% transaction fee	Farm Business Network	Likely national, but unclear	Launched 2020, 2021 POET low-carbon biofuels pilot program (premium at point of sale)	No	Minimum 200 acres. 30 cents/acre for research program, 15 cents/bushel for carbon program. Price floor of \$20/carbon credit	Yes	No	No	No	No
Nutrien Carbon	Outcome based - Payments based on change in metrics outlined in protocols	Nutrien Ag Solutions	U.S. and Canada	Launching 2021, still under development	Unknown	Target enrollment of 500-1000 acres, pricing still being determined	Yes	No	No	No	No

Last updated 6/16/2021.