Ag Equipment Intelligence

CUSTOM RESEARCH REPORT

Electric Farm Machinery: Outlook Through 2027

March 2022

A custom research report prepared by the editors of Ag Equipment Intelligence

Table of Contents

Executive Summary4
Economics, Regulations & Labor Driving
On-Farm Electric Machinery Technology6
Stockpiling & Pulling Sales Forward: Behaviors Seen From Diesel's Tier 4 Days 7
Continued Improvements Ahead
for Battery Technology9
Charts
Sources of U.S. Electricity Generation – 2020
Estimated Electric Vehicle Lithium-Ion Battery Pack Cost – 2008-202111
OEMs Signal Future Includes
Electric Machinery 14
Pricing of Electric Farm Machinery a Balancing Act 17
Who Will Adopt Electric Farm Machinery First? 19
Charts
The Global Electric Farm Tractor Market
The Global Market for Electrified Off-Highway
Equipment by Vehicle Application

Electric Machinery Could Add New Demands on Dealerships	
Realistic EV Farm Application at a Glance	23
Farmer Survey: Potential for & Sentiment about Electric Farm Machinery	25
Tables	
Likelihood of Purchase By Equipment Category for All Farmers	25
Hemp Producers' Likelihood of Electric Machinery Purchase	29
Charts Electric Utility Vehicles	26
Electric Zero-Turn Mowers, Lawn/Garden Tractors	26
Electric Skid Steer Loaders	26
Electric Combines	27
Electric 2WD 100+ HP Tractors	27
Electric 4WD Tractors	27
Sentiment about Electric Combines	28
Sentiment about Electric Zero-Turn Mowers/Lawn Tractors	28
Former Concerns about Flactric Machinery	30

Ag Equipment Intelligence Research Reports are published by Lessiter Media. © 2022 Lessiter Media. All rights reserved. Reproduction in any form of this report content is strictly forbidden without prior written consent of the publisher.

The Ag Equipment Intelligence monthly newsletter is available by paid subscription. U.S., Canada and Mexico subscriptions are \$499 for 12 monthly issues. International subscriptions are \$599 for 12 monthly issues. Send subscription requests to Ag Equipment Intelligence, P.O. Box 624, Brookfield, WI 53008-0624; Phone 262-782-4480 or 800-645-8455 (U.S. only); Fax 262-782-1252; Email info@lessitermedia.com.

P.O. Box 624 • Brookfield, Wisconsin • Phone: 262/782-4480 • Fax: 262/782-1252 • www.AgEquipmentIntelligence.com

Table of Contents cont.

Additional Farmer Demographics in Response to Likelihood of Electric Machinery Purchase	
Tables	
U.S. Farmers' Likelihood of Electric Machinery Purchase	
Canadian Farmers' Likelihood of Electric Machinery Purchase	
Corn Belt's Likelihood of Electric Machinery Purchase	
Corn Producers' Likelihood of Electric Machinery Purchase	
Farmers with 1,000-1,749 Acres Likelihood of Electric Machinery Purchase 33	
Farmers with 1-49 Acres Likelihood of Electric Machinery Purchase	
No-Tillers Likelihood of Electric Machinery Purchase	
Producers With Livestock as a Significant Part of Operation Likelihood of Electric Machinery Purchase	
Dealer Survey: Concerns About & Customer Interest in Electric Farm Machinery35	
Tables	
Concerns about Selling & Servicing Both Diesel	
& Electric Farm Machinery Over the Next 5 Years	
Charts	
Primary Customers' Interest in Electric Farm Machinery	
Technician Skills/Availability	

acility Investments	
Machine Inventory/Investment	37
Parts Inventory/Investment	
Sales Skills/Availability	37
Concern about Competing Distribution Models for Electric Farm Machinery, US vs. Canada	38
Concern about Competing Distribution Models for Electric Farm Machinery, Dealers with Very Interested vs. Very Uninterested Customers	38
Appendix I: Farmer Commentary on Electric Farm Machinery	39
Appendix II: Dealer Commentary on Electric Farm Machinery	44
Appendix III: Suppliers of Electric Farm Machinery & Related Power Sources, Spring 2022	46
Appendix IV: Additional Resources on Electric Farm Machinery	49
Additional Reports from Ag Equipment Intelligence	52