



EMERGING TECH RESEARCH

Agtech

Q3 2021 VC Update

Report preview

The full report is available through the PitchBook Platform.





Contents

| | |
|-------------------------------------|-----------|
| Vertical overview | 3 |
| Q3 2021 timeline | 5 |
| Agtech VC ecosystem market map | 6 |
| VC activity | 8 |
| Emerging opportunities | 19 |
| Biochemicals | 20 |
| Soil measurement and carbon farming | 23 |
| Select company highlights | 26 |
| DeHaat | 27 |
| Iron Ox | 29 |

Institutional Research Group

ANALYSIS

Alex Frederick Senior Analyst, Emerging Tech
alex.frederick@pitchbook.com
pbinstitutionalresearch@pitchbook.com

DATA

Susan Hu Associate Data Analyst

Publishing

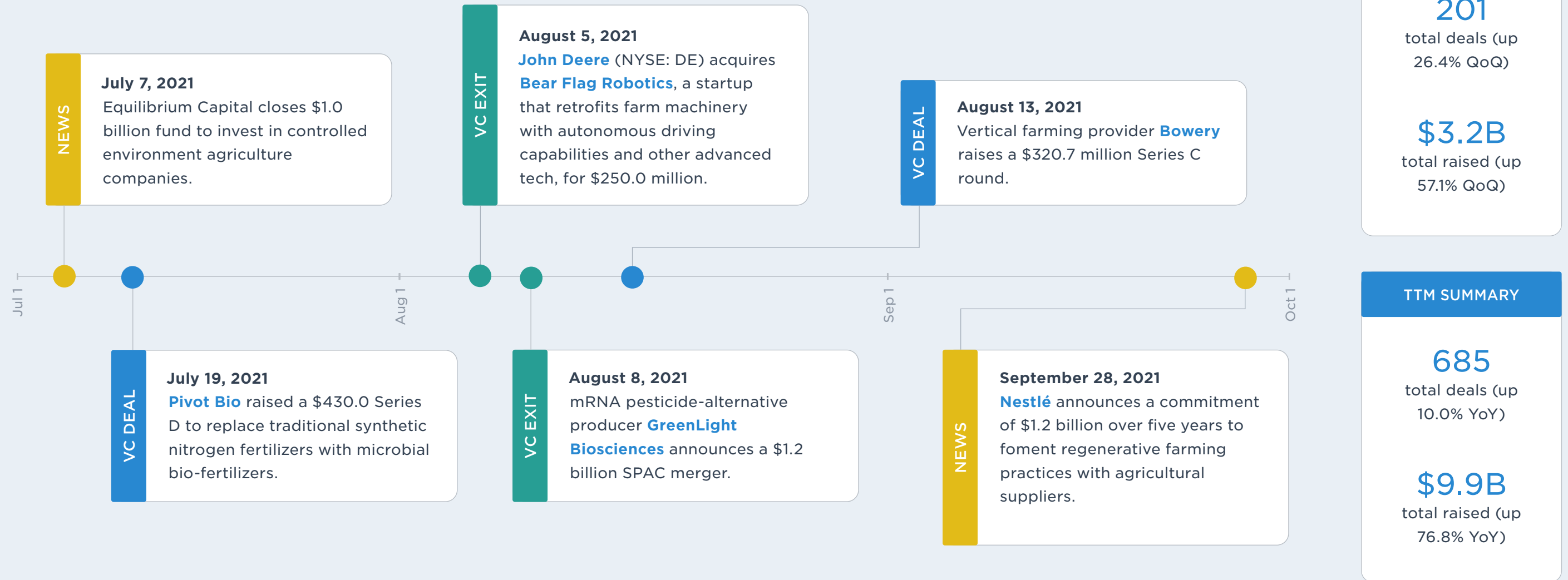
Designed by **Drew Sanders**

Cover by **Julia Midkiff**

Published on December 8, 2021



Q3 2021 timeline



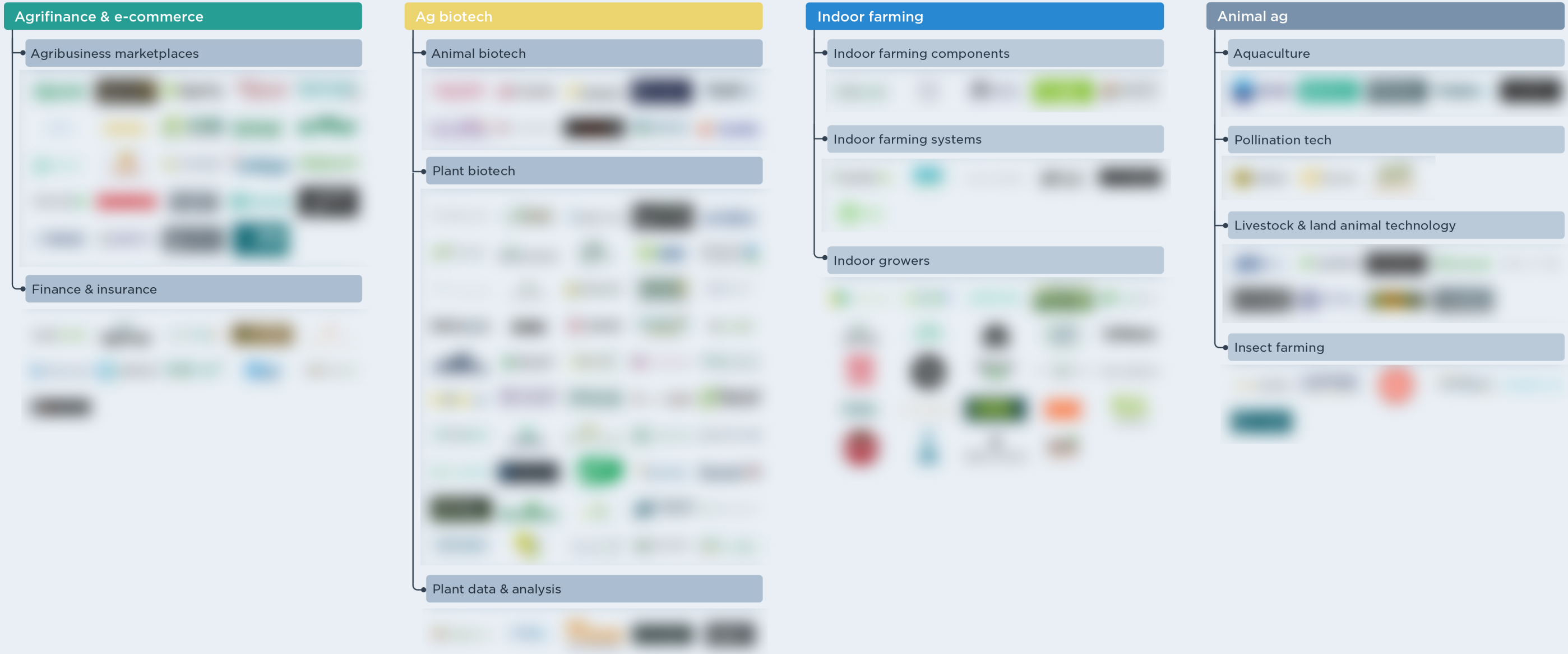
1: "US Drought Monitor," National Drought Mitigation Center, Curtis Riganti, August 19, 2021.



Agtech VC ecosystem market map

Click to view interactive market map on the PitchBook platform

Market map is a representative overview of venture-backed or growth-stage providers in each segment. Companies listed have received venture capital or other notable private investments.

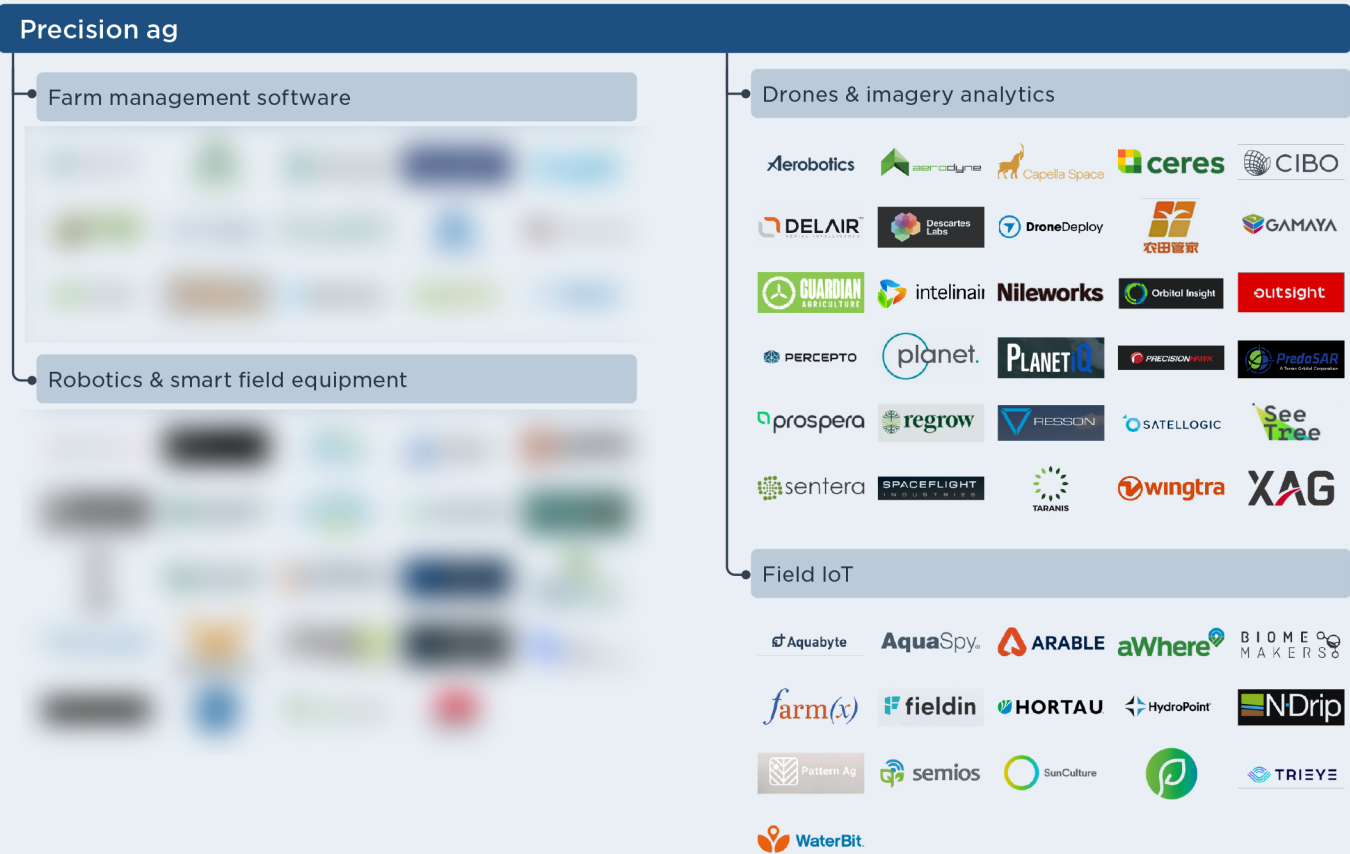




Agtech VC ecosystem market map

Click to view interactive market map on the PitchBook platform

Market map is a representative overview of venture-backed or growth-stage providers in each segment. Companies listed have received venture capital or other notable private investments.





VC activity

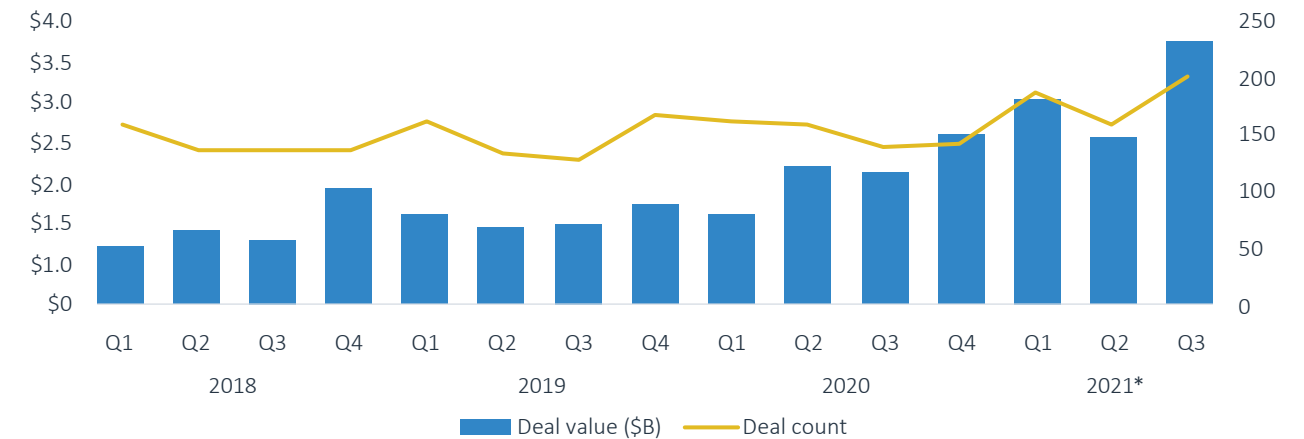
Funding soared to a record high in Q3 2021, as agtech companies globally logged \$3.2 billion across 201 deals, up 57.0% QoQ. Annually, deal values landed at \$7.8 billion YTD, surpassing 2020 year-end totals by 21.3%, with one quarter remaining in the year. Deal count totaled 545 deals in 2021 YTD, on pace to reach a decade high.

Ag biotech startups once again attracted the majority (39.6%) of quarterly VC funding, although precision ag startups drew the majority of deals by count (34.4%). **Pivot Bio** logged the largest round of the quarter, a \$430.0 million Series D led by Temasek Holdings. The company is developing microbial biochemicals to provide an environmentally friendly alternative to synthetic fertilizers. Investors are focusing on agtech solutions that reduce atmospheric carbon, either by mitigating factors that lead to carbon emissions, such as enteric fermentation, or improving soil health and other carbon-capture tools and strategies.

The rise in agtech funding has elevated median deal sizes and valuations. The median early-stage VC deal size in 2021 sits at \$4.0 million, up 44.9% YoY, while the late-stage VC deal size median rose to \$10.6 million, up 52.3% YoY. The angel & seed median pre-money valuation reached \$5.9 million in Q3 2021, up 28.4% YoY, and the late-stage median pre-money valuation reached \$80.0 million, double the 2020 median.

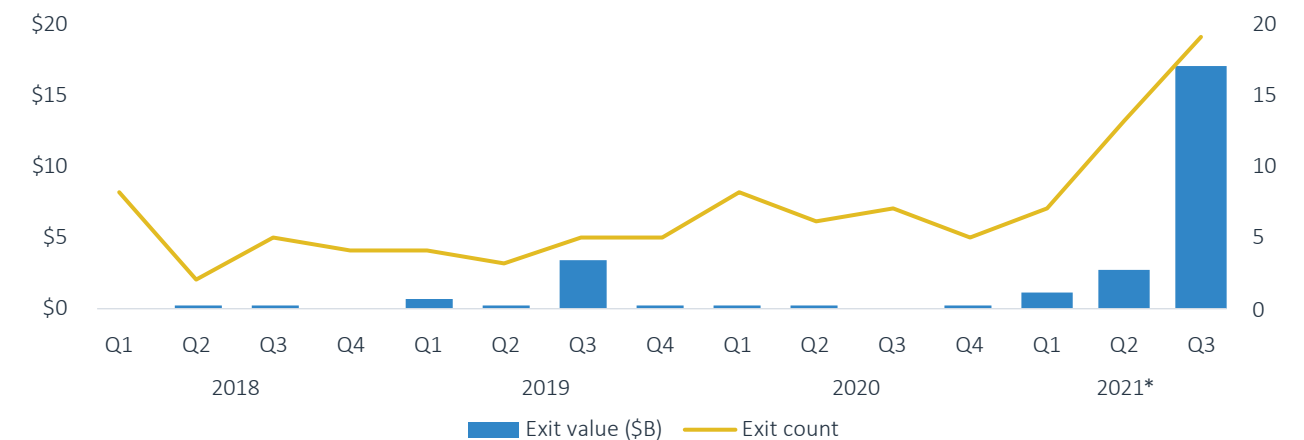
Agtech exit activity rose for the third straight quarter, with 19 deals accounting for \$16.9 billion in exits. The largest exit of the quarter was **Ginkgo Bioworks'** \$1.7 billion SPAC merger. The company's cell editing platform is used to pursue livestock feed innovation and microbiomics alternatives to synthetic agricultural chemicals, among other objectives. Other key companies that exited in Q3 include **Benson Hill** (NYSE: BHIL), **Bear Flag Robotics**, and **American Robotics**.

Figure 3. QUARTERLY AGTECH VC DEAL ACTIVITY



Source: PitchBook | Geography: Global | *As of September 30, 2021

Figure 4. QUARTERLY AGTECH VC EXIT ACTIVITY



Source: PitchBook | Geography: Global | *As of September 30, 2021



VC ACTIVITY

Figure 14.

Key agtech early-stage deals

| COMPANY | CLOSE DATE | CATEGORY | DEAL SIZE (\$M)* | DEAL TYPE | LEAD INVESTOR(S) | VALUATION STEP-UP (POST TO PRE) |
|-----------------------------------|--------------------|----------------------------------|------------------|----------------|---|---------------------------------|
| E-ctare | September 21, 2021 | Finance & insurance | \$600.0 | Early-stage VC | N/A | N/A |
| AmplifiedAg | August 9, 2021 | Indoor farming systems | \$40.0 | Early-stage VC | N/A | N/A |
| Monarch Tractor | August 30, 2021 | Robotics & smart field equipment | \$30.7 | Series B | N/A | 2.86x |
| Carbon Robotics | August 27, 2021 | Robotics & smart field equipment | \$27.0 | Series B | Anthos Capital | 1.72x |
| Smallhold | August 20, 2021 | Indoor growers | \$25.0 | Series A | N/A | 3.89x |
| Advanced Farm Technologies | September 21, 2021 | Robotics & smart field equipment | \$24.7 | Series B | Catapult Ventures | 2.00x |
| AcreTrader | July 26, 2021 | Finance & insurance | \$22.3 | Series A | Jump Capital | 3.97x |
| Agricorp International | September 2, 2021 | Agribusiness marketplaces | \$17.5 | Series A | Vami Nigeria | N/A |
| Maui Greens | September 3, 2021 | Indoor growers | \$16.7 | Early-stage VC | N/A | N/A |
| Vytelle | August 18, 2021 | Animal biotech | \$15.3 | Series A | Ag-tech VC, Fulcrum Global Capital, Open Prairie Ventures | N/A |

Source: PitchBook | Geography: Global | *As of September 30, 2021



VC ACTIVITY

Figure 16.
Key agtech VC exits

| COMPANY | CLOSE DATE | SEGMENT | EXIT SIZE (\$M)* | EXIT TYPE | ACQUIRER(S)/INDEX |
|--------------------------|--------------------|----------------------------------|------------------|-----------|---|
| Ginkgo Bioworks Holdings | September 17, 2021 | Animal biotech | \$14,225.0 | SPAC | Soaring Eagle Acquisition /NYSE: DNA |
| Benson Hill | September 30, 2021 | Plant data & analysis | \$722.0 | SPAC | Star Peak Corp II / NYSE: BHIL |
| Caribou Biosciences | July 23, 2021 | Plant biotech | \$603.3 | IPO | NASDAQ: CRBU |
| Bear Flag Robotics | August 5, 2021 | Robotics & smart field equipment | \$250.0 | M&A | Deere |
| Biotalys | July 2, 2021 | Plant biotech | \$213.5 | IPO | BNP Paribas Fortis Private Equity / BRU:BTLS |
| American Robotics | August 5, 2021 | Drones & imagery analytics | \$70.6 | M&A | Ondas Networks |
| Voyage81 | August 12, 2021 | Drones & imagery analytics | \$40.0 | M&A | IL Makiage |
| AgriFORCE | July 8, 2021 | Indoor farming components | \$0.0 | IPO | NASDAQ: AGRI |
| TetraGenetics | September 13, 2021 | Animal biotech | \$0.0 | M&A | AbCellera |
| i2LResearch | July 2, 2021 | Plant biotech | \$0.0 | M&A | Cawood Scientific |

Source: PitchBook | Geography: Global | *As of September 30, 2021



SELECT COMPANY HIGHLIGHT | DEHAAT



Founded
2012

850+ employees

Total VC raised:
\$165.0M over 4 deals

Based in Patna, India

Last completed financing:
\$115.0M of Series D venture
funding in a deal led by GV
and WheatSheaf Group

Last financing valuation:
Undisclosed

First institutional round:
\$4.3M (March 2019)

Overview

DeHaat is a comprehensive agriculture platform that includes a suite of digital tools for farmers, a marketplace that connects farmers with stakeholders including input vendors, distributors, agronomists, and financing providers. Additionally, the marketplace assists farms with first- and last-mile delivery by hosting delivery agents, which it calls “micro-entrepreneurs.” Delivery agents can be hired to deliver inputs to farmers and transport produce from farmers to customers.

The company’s digital platform includes a growing suite of farm management tools such as yield forecasting, education and advisory services, weather-based decision analytics, and soil testing services. It has bolstered its product offering through M&A. In February 2021, the company acquired imagery analytics provider **FarmGuide**, and it acquired ag marketplace VezaMart in 2019.

Leadership

Co-founder & CEO: Shashank Kumar
Co-founder & Executive Director: Shyam Singh
Co-founder & Director: Amrendra Singh

Competitors

DeHaat focuses its services on northeastern India. There are no competitors that offer the same suite of tools and services, but the company faces competition from providers with more targeted solutions, such as Rival **Jai Kisan**, which provides financial services to smallholder farmers in India. **Jai Kisan** works with input and equipment suppliers to offer financing options when making purchases. DeHaat also competes against ag marketplaces, such as **Ninjacart**, that connect farmers with produce buyers. Rival Agstack Technologies (DBA **Gramophone**) is the most comparable competitor, offering farm advisory services, marketing support, and a retail offering where farmers can buy inputs, seeds, and ag hardware.