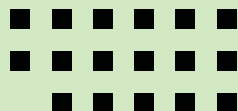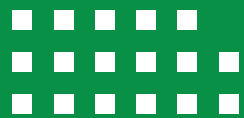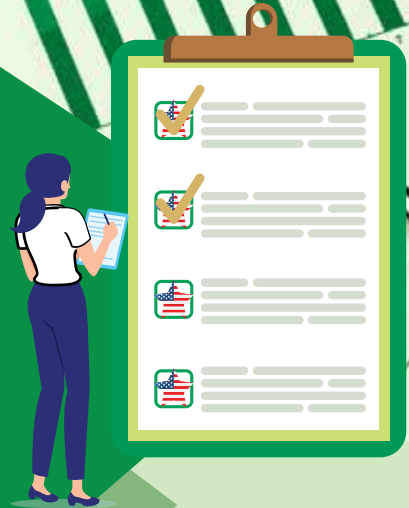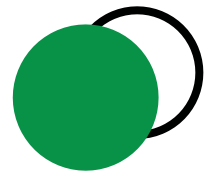# USA Skills Survey Report

2023-2024

AGCareers.com

Introduction

Welcome to the 2023-2024 AgCareers.com Employee Skills Survey. By reviewing the challenges regarding the desire for suitable job candidates and the development of work-ready skills and knowledge faced by Agriculture and Food companies in the USA, our objective is to help these companies acquire better insight regarding what skills employers look for and where they feel the most significant skill gaps lie.

The AgCareers.com Employee Skills Survey provides a range of data regarding work-ready skills and knowledge relevant to participating Agriculture and Food companies over the last twelve months within the USA. This report offers market knowledge, data, and trends for 2023-24.

The AgCareers.com Employee Skills Survey involved contributions from Agriculture and Food companies. This information documents emerging industry trends and developments regarding work-ready skills and knowledge.

Topics covered include graduate and experienced new hires, professional development, employee knowledge, and the most and least necessary soft skills. AgCareers.com captured the information presented in this document via direct communication with clients. The results are represented in tables that best capture and display the information. This document provides the key findings, analysis commentary, and detailed results from the collated data.

Key Findings

- Employers feel that experienced new hires are much more adequately prepared with work-ready skills upon being hired.
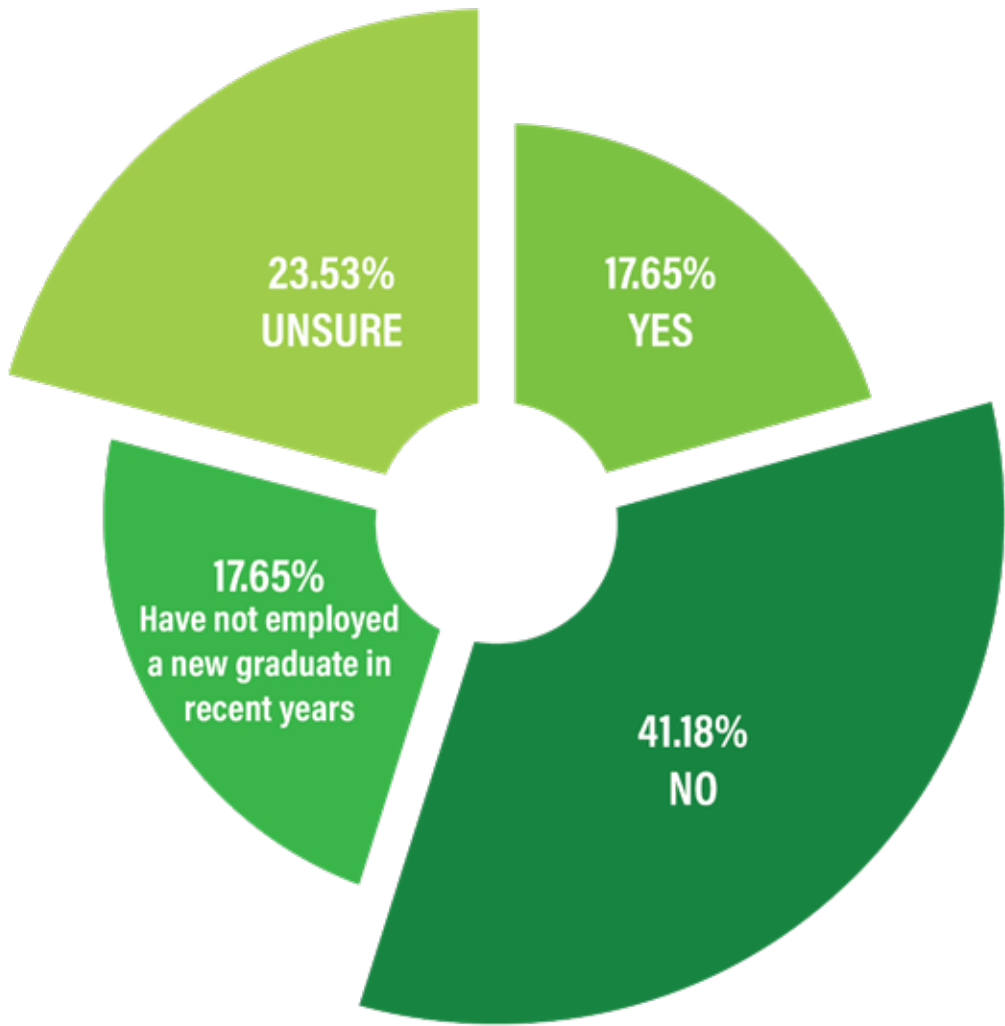   - The biggest skill gaps for new graduate hires, experienced new hires, and current experienced employees are Problem Solving & Decision Making, Verbal Communication, and Organization & Planning Skills.

- Just over half of organizations require professional development training, with the majority providing funding for the training.

- The most desired professional development opportunities are Online Training, General Professional Training or "Soft Skills", and Technical Topics.

- The most desired professional development topics are Middle Management, Change Management, and Verbal Skills, Including Communication with Stakeholders.

- Just under half of organizations require knowledge in Agronomy and Precision Agriculture and Sustainability.
    - The most useful topics regarding Agronomy and Precision Agriculture are Crop Consulting and Soil Science.
    - The most useful topics regarding Animal Science are Animal Behavior and Welfare and Industry Regulations.

- The most necessary skills over all levels of employment are Problem Solving & Decision Making, Organization & Planning Skills, and Teamwork.

- The least necessary skills over all levels of employment are Data Analysis, Information Processing, and Sales, Persuasion, & Influence.
    - The most necessary soft skills coincide with the biggest skills gaps for new graduate hires, experienced new hires, and current experienced employees.
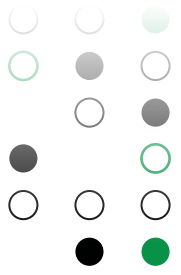
New Graduates:

Do you feel that new graduate hires are adequately prepared with work-ready skills upon hire?

23.53% UNSURE

17.65% YES

17.65% Have not employed a new graduate in recent years

41.18% NO

What do you see as the biggest skills gap for new graduate hires?
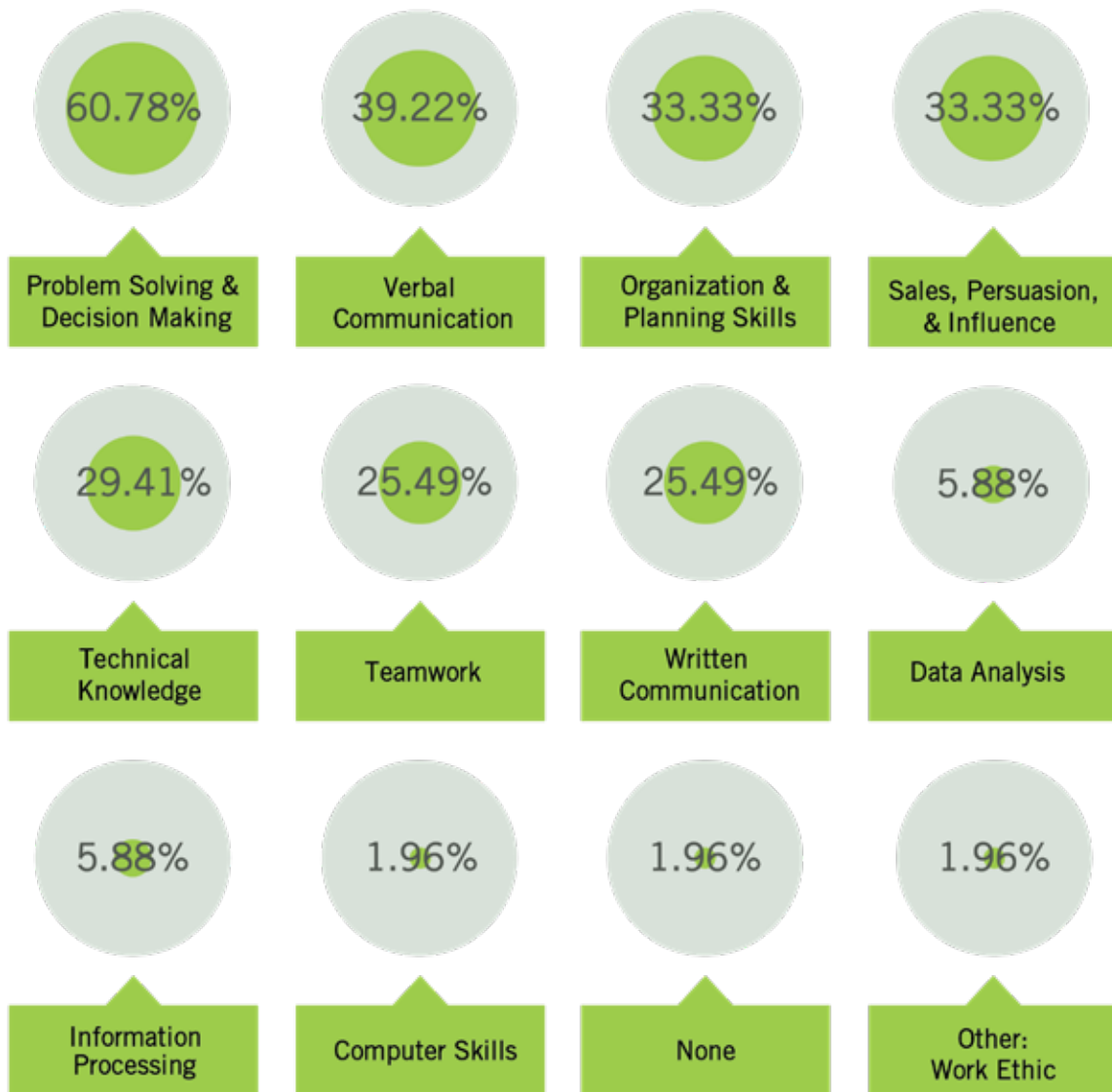
60.78%	39.22%	33.33%	33.33%
Problem Solving & Decision Making	Verbal Communication	Organization & Planning Skills	Sales, Persuasion, & Influence

29.41%	25.49%	25.49%	5.88%
Technical Knowledge	Teamwork	Written Communication	Data Analysis

5.88%	1.96%	1.96%	1.96%
Information Processing	Computer Skills	None	Other: Work Ethic

*Percentages do not total 100; respondents were allowed to select multiple responses. Results are calculated by dividing the number of responses by respondents. *

Experienced New Hires:

Do you feel that your experienced new hires are adequately prepared with work-ready skills upon hire?

Have not recently hired an employee 1.96%

9.80% UNSURE

11.76% NO

76.47% YES
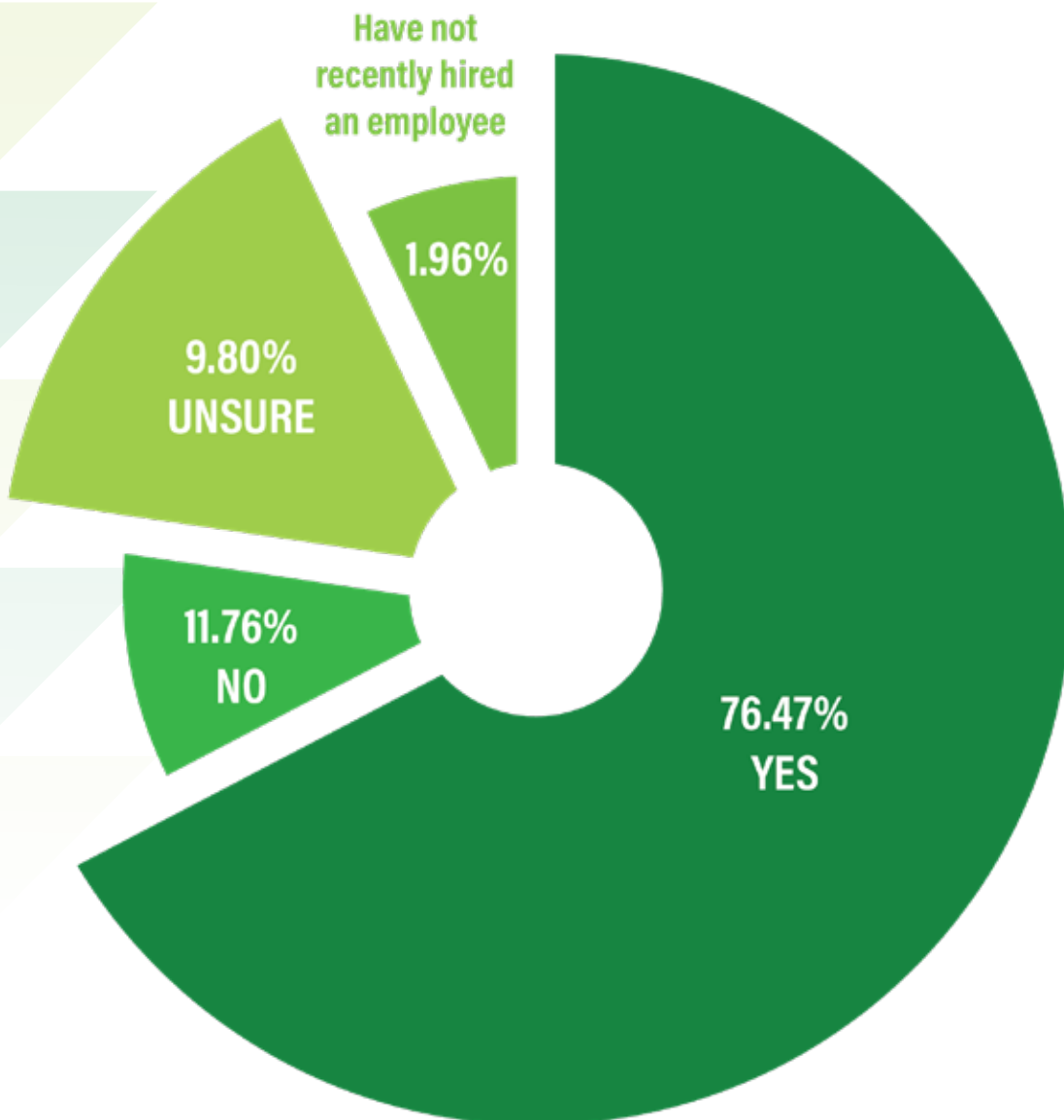
What do you see as the biggest skills gap for experienced new hires?

41.18%	**39.22%**	**31.37%**	**21.57%**
Verbal Communication	Problem Solving & Decision Making	Organization & Planning Skills	Computer Skills
21.57%	**21.57%**	**19.61%**	**19.61%**
Written Communication	Technical Knowledge	Teamwork	Sales, Persuasion, & Influence
13.73%	**9.80%**	**7.84%**	**0.0%**
Data Analysis	Information Processing	None	Other:

*Percentages do not total 100; respondents were allowed to select multiple responses. Results are calculated by dividing the number of responses by respondents. *

Current Experienced Employees

What do you see as the biggest skills gaps for current experienced employees?

|	
Problem Solving & Decision Making	58.00%
Verbal Communication	36.00%
Organization & Planning Skills	32.00%
Sales, Persuasion, and Influence	24.00%
Teamwork	22.00%
Written Communication	18.00%
Computer Skills	16.00%
Information Processing	14.00%
None	12.00%
Data Analysis	8.00%
Technical Knowledge	8.00%
Other:	0.00%

*Percentages do not total 100; respondents were allowed to select multiple responses. Results are calculated by dividing the number of responses by respondents. *
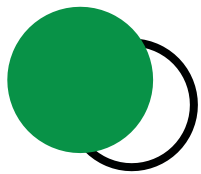
Summary:

Looking at the data above regarding Graduate vs Experienced New Hires, the following information has been gathered:
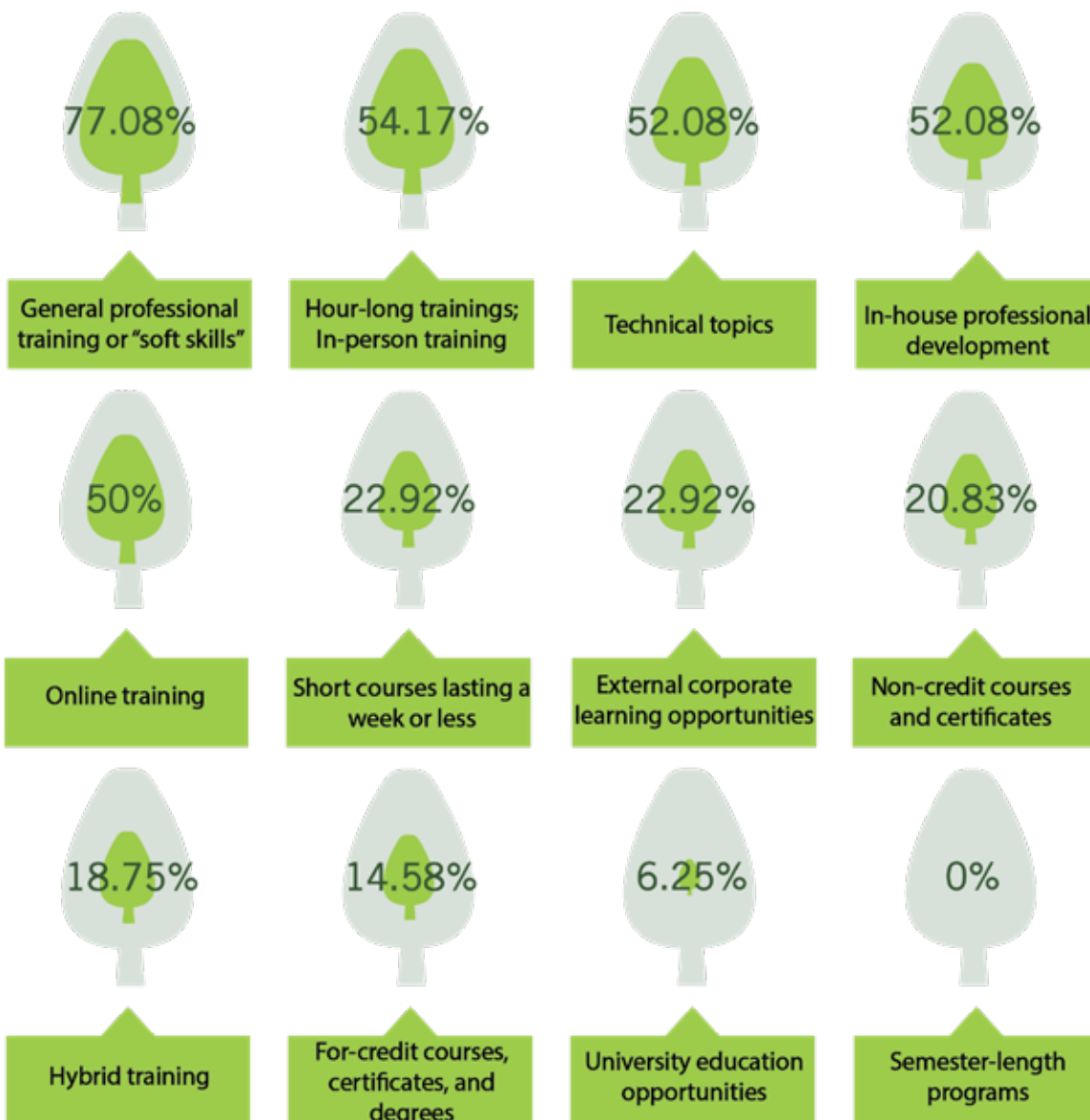
17.65% of participants felt that new graduate hires are adequately prepared with the necessary skills upon being hired. On the contrary, 41.18% of voters felt that new graduate hires are not adequately prepared, with another 17.65% having not hired a new graduate in recent years. The data also shows that the largest skill gaps for new graduates are Problem Solving & Decision Making (60.78%), Verbal Communication (39.22%), Organization & Planning Skills (33.33%), and Sales, Persuasion, & Influence (33.33%).

Additionally, it seems that employers feel that those with at least 5 years of experience are much more adequately prepared with work-ready skills. In fact, 76.47% of voters felt this way, with only 11.76% feeling that experienced new hires are not adequately prepared. The largest skill gaps for these experienced new hires were Verbal Communication (41.18%), Problem Solving & Decision Making (39.22%), and Organization & Planning Skills (31.37%).

Lastly, the largest skill gaps for current experienced employees were voted as Problem Solving & Decision Making (58.00%), Verbal Communication (36.00%), and Organization & Planning (32.00%).

Professional Development:

What do you and your employees look for in professional development opportunities?

77.08%	**54.17%**	**52.08%**	**52.08%**
General professional training or "soft skills"	Hour-long trainings; In-person training	Technical topics	In-house professional development
50%	**22.92%**	**22.92%**	**20.83%**
Online training	Short courses lasting a week or less	External corporate learning opportunities	Non-credit courses and certificates
18.75%	**14.58%**	**6.25%**	**0%**
Hybrid training	For-credit courses, certificates, and degrees	University education opportunities	Semester-length programs

*Percentages do not total 100; respondents were allowed to select multiple responses. Results are calculated by dividing the number of responses by respondents. *

How does your company verify professional development has been successfully completed?
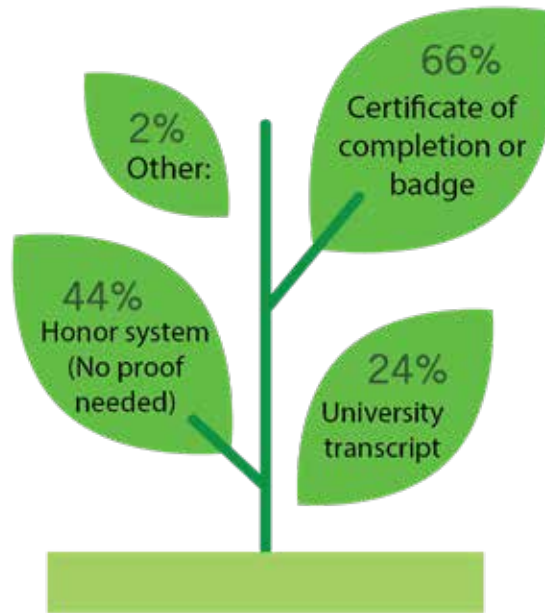
66%
Certificate of completion or badge

2%
Other:

44%
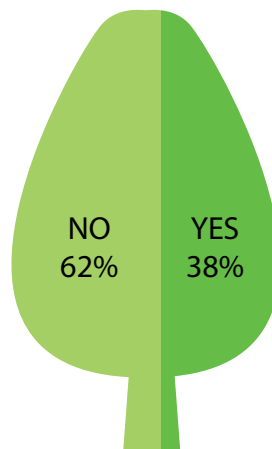Honor system (No proof needed)

24%
University transcript

*Percentages do not total 100; respondents were allowed to select multiple responses. Results are calculated by dividing the number of responses by respondents. *

Does your company fund individual employee professional development?

Unsure
4%

NO
8%

YES
88%

Does your company fund individual employee professional development?

NO
62%

YES
38%

Which of the following topics for professional development training would be useful to your current employees or new hires?

Topic	Percentage
Verbal Skills, Including Communication with Stakeholders	68.42%
Middle management	52.63%
Presentation Skills	52.63%
Sales strategies	52.63%
Project management	47.37%
Change management	47.37%
Basic finance and accounting	36.84%
Executive Presence	31.58%
Technical Writing	10.53%
Social Media	10.53%
Writing for the Public	5.26%
MBA	5.26%
Other:	0.0%

*Percentages do not total 100; respondents were allowed to select multiple responses. Results are calculated by dividing the number of responses by respondents. *

Summary:

Looking at the data above regarding Professional Development, the following information has been gathered:

General Professional Training or "Soft Skills" (77.08%), Hour-Long Trainings; In-Person Training (54.17%), Technical Topics (52.08%), and In-House Professional Development (52.08%) are the most sought-after professional development opportunities for employers and employees. When it comes to verifying that professional development has been completed most organizations either require a certificate of completion or badge (66.00%) or use an honour system (44.00%). 88.00% of organizations provide individual funding for employee professional development. Additionally, only 38.00% of organizations require their employees to complete professional development training for soft skills. Areas such as Verbal Skills, Including Communication with Stakeholders (68.42%), Middle Management (52.63%), Sales Strategies (52.63%), and Presentation Skills (52.63%) were voted as the most useful topics for professional development training.
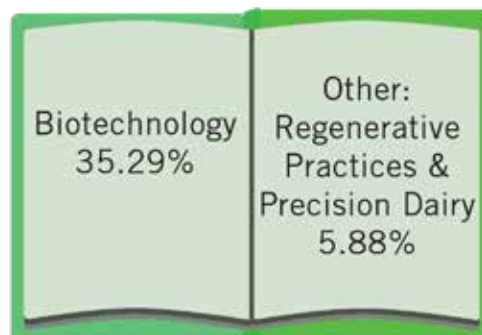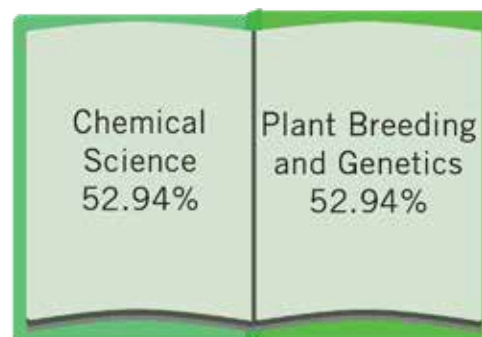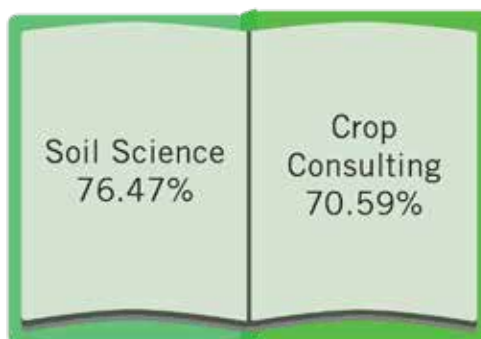
Employee Knowledge:

Do employees within your organization require Agronomy and Precision Agriculture knowledge?

YES
38%

NO
62%

Which of the following topics regarding Agronomy and Precision Agriculture would be useful to your new employees or new hires for professional development?

Soil Science
76.47%

Crop Consulting
70.59%

Chemical Science
52.94%

Plant Breeding and Genetics
52.94%

Biotechnology
35.29%

Other: Regenerative Practices & Precision Dairy
5.88%

*Percentages do not total 100; respondents were allowed to select multiple responses. Results are calculated by dividing the number of responses by respondents. *
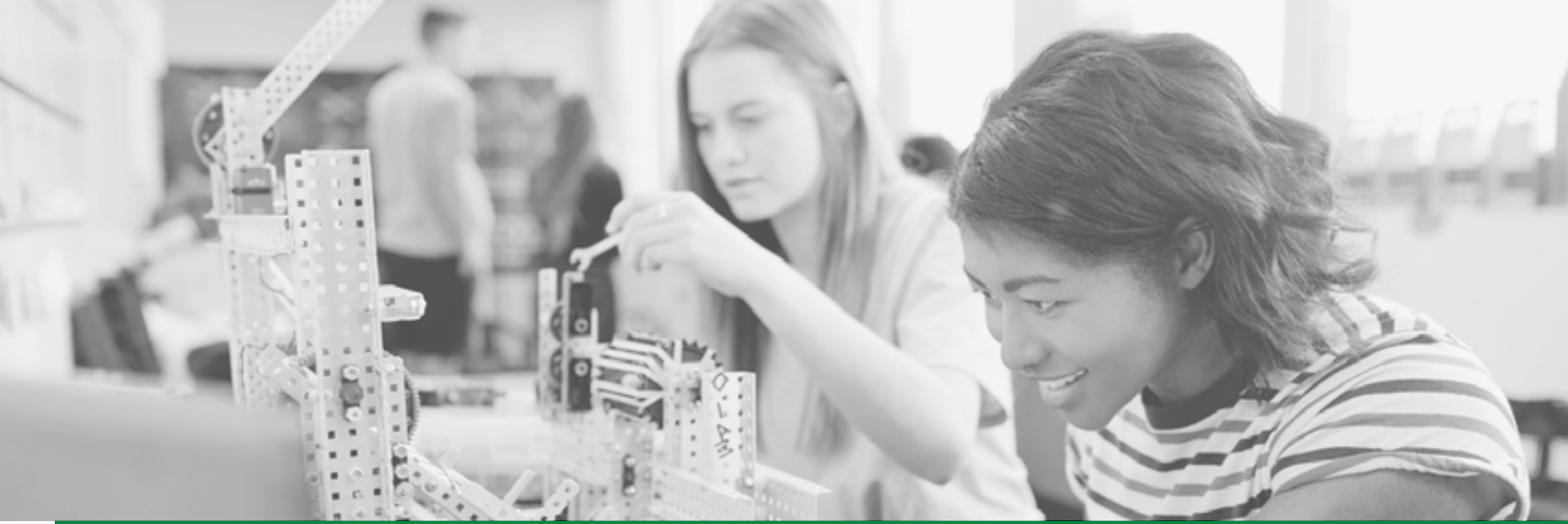
Do employees within your organization require Data Science and Digital Agriculture knowledge?
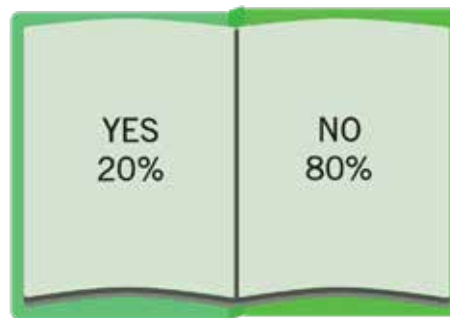
YES
20%

NO
80%

Which of the following topics regarding Data Science and Digital Agriculture would be useful to your new employees or new hires for professional development?

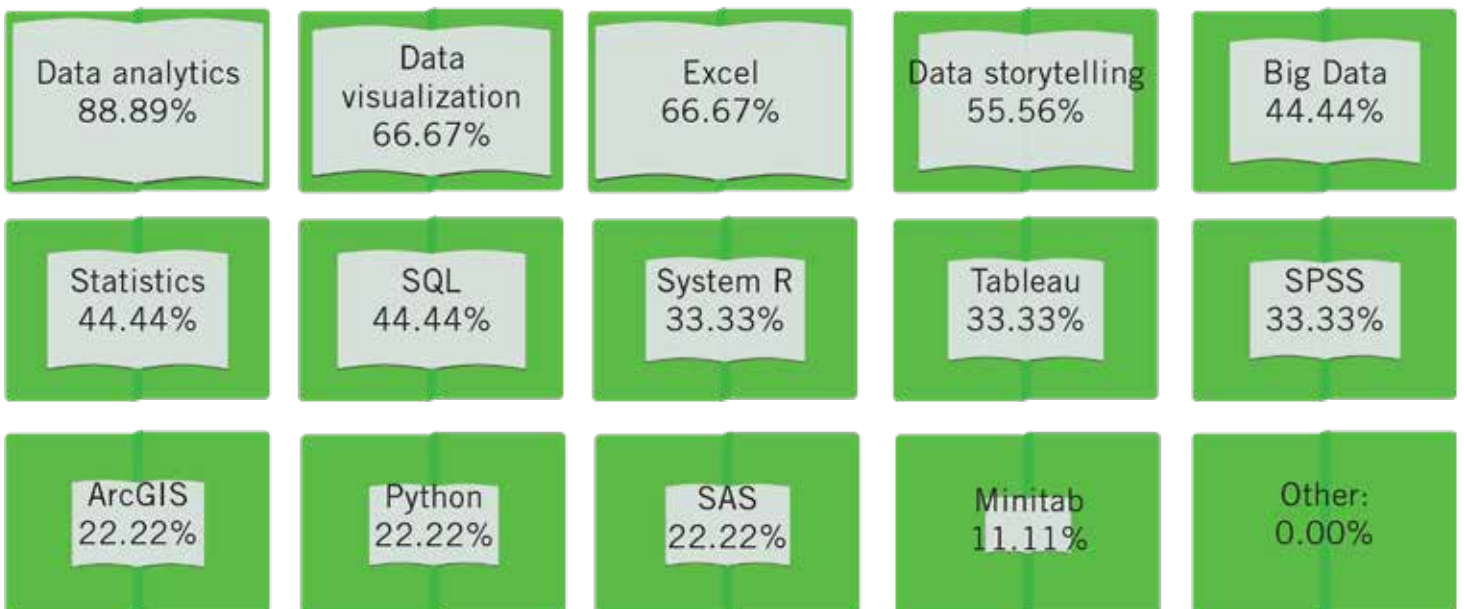|				
Data analytics 88.89%	Data visualization 66.67%	Excel 66.67%	Data storytelling 55.56%	Big Data 44.44%
Statistics 44.44%	SQL 44.44%	System R 33.33%	Tableau 33.33%	SPSS 33.33%
ArcGIS 22.22%	Python 22.22%	SAS 22.22%	Minitab 11.11%	Other: 0.00%

*Percentages do not total 100; respondents were allowed to select multiple responses. Results are calculated by dividing the number of responses by respondents. *

Do employees within your organization require Animal Science knowledge?

NO
64%

YES
36%

Which of the following topics regarding Animal Science would be useful to your new employees or new hires for professional development?

Animal Behavior
and Welfare
55.56%

Industry
Regulations
50%

Manufacturing
44.44%

General
33.33%

Leadership in
Animal Sciences
33.33%

Sustainability
33.33%

Precision
Livestock Sciences
(Big Data)
27.78%

Other:
0.00%

Percentages do not total 100; respondents were allowed to select multiple responses. Results are calculated by dividing the number of responses by respondents.

Do employees within your organization require Food Science knowledge?

NO
80%

YES
20%

Which of the following topics regarding Food Science would be useful to your new employees or new hires for professional development?

Food Safety
80%

Sustainability
80%

Food and
Ingredients
60%

Shelf-Stable Food
Manufacturing
40%

Fermentation
20%

Baking Science
and Technology
20%

Other:
0%

*Percentages do not total 100; respondents were allowed to select multiple responses. Results are calculated by dividing the number of responses by respondents. *

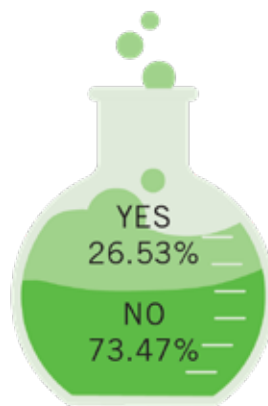Do employees within your organization require Sustainability knowledge?

YES
26.53%

NO
73.47%

Which of the following topics regarding Sustainability would be useful to your new employees or new hires for professional development?

Supply Chain
69.23%

Understanding
Regulations
61.54%

Carbon Credits
53.85%

Food
Production
53.85%

Pest Control
53.85%

Renewable
Energy
53.85%

Water
46.15%

Animal
Production
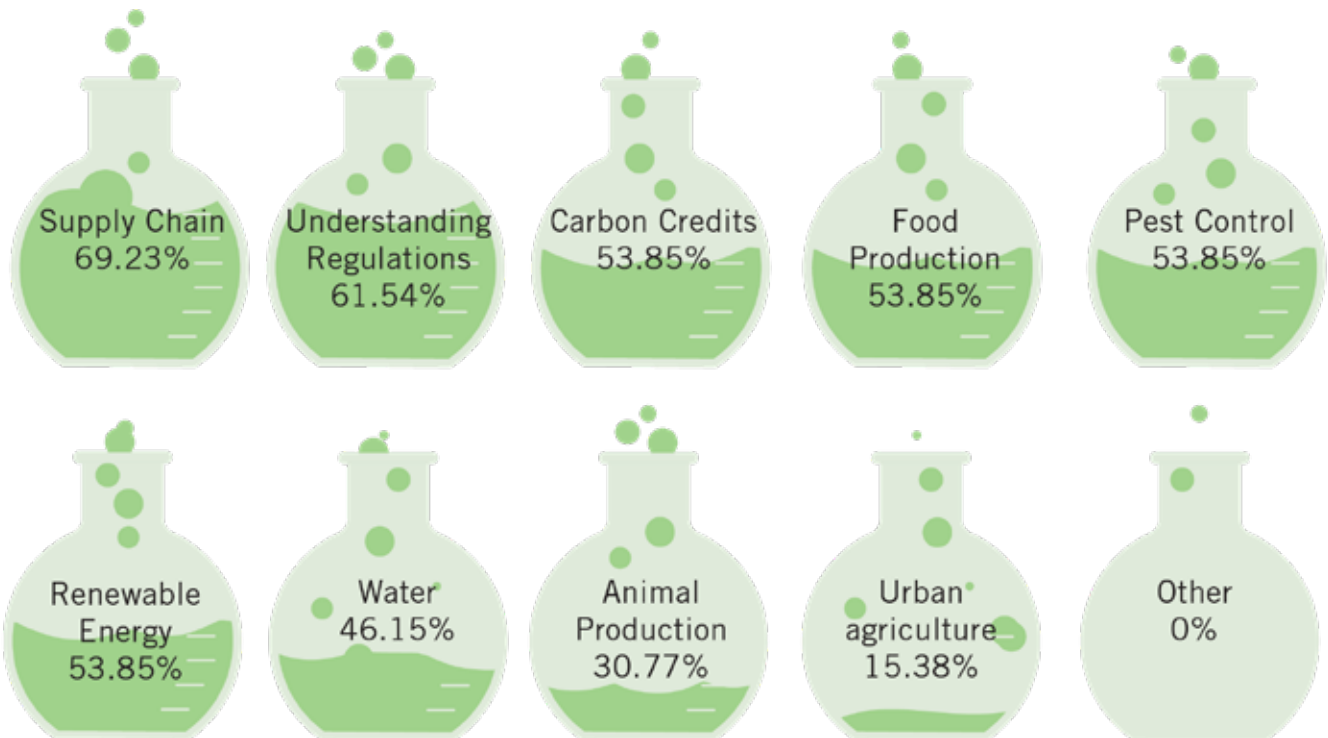30.77%

Urban
agriculture
15.38%

Other
0%

*Percentages do not total 100; respondents were allowed to select multiple responses. Results are calculated by dividing the number of responses by respondents. *

Summary:

Overall, 38.00% of organizations require knowledge in Agronomy and Precision Agriculture, with the most useful topics in this field being Soil Science (76.47%) and Crop Consulting (70.59%).20.00% of organizations require knowledge in Data Science and Digital Agriculture, with the most useful topics in this field being Data Analytics (88.89%), Data Visualization (66.67%), and Excel (66.67%). 36.00% of organizations require knowledge in Animal Science, with the most useful topics in this field being Animal Behavior and Welfare (55.56%) and Industry Regulations (50.00%). 20.00% of organizations require knowledge in Food Science, with the most useful topics in this field being Food Safety (80.00%) and Sustainability (80.00%). 26.53% of organizations require knowledge in Sustainability, with the most useful topics in this field being Supply Chain (69.23%) and Understanding Regulations (61.54%).

Most and Least Necessary Skills:

AgCareers.com asked agriculture and food companies which skills were most necessary for various groups of employees. Employers ranked skills from one (1) being the most necessary, to ten (10) being the least necessary.

Necessary Skills for Skilled/Technical Trade Employees

	Necessary Skills
1.	Technical Knowledge
2.	Problem Solving & Decision Making
3.	Teamwork
4.	Organization & Planning Skills
5.	Verbal Communication
6.	Computer Skills
7.	Written Communication
8.	Information Processing
9.	Data Analysis
10.	Sales, Persuasion, & Influence

Necessary Skills for Production/Manual Labor Employees

	Necessary Skills
1.	Teamwork
2.	Verbal Communication
3.	Problem Solving & Decision Making
4.	Technical Knowledge
5.	Organization & Planning Skills
6.	Computer Skills
7.	Written Communication
8.	Information Processing
9.	Data Analysis
10.	Sales, Persuasion, & Influence

Necessary Skills for Professional Employees

	Necessary Skills
1.	Problem Solving & Decision Making
2.	Organization & Planning Skills
3.	Teamwork
4.	Verbal Communication
5.	Written Communication
6.	Computer Skills
7.	Technical Knowledge
8.	Data Analysis
9.	Information Processing
10.	Sales, Persuasion, & Influence

Necessary Skills for Management Employees

	Necessary Skills
1.	Problem Solving & Decision Making
2.	Organization & Planning Skills
3.	Verbal Communication
4.	Teamwork
5.	Written Communication
6.	Computer Skills
7.	Sales, Persuasion, & Influence
8.	Technical Knowledge
9.	Data Analysis
10.	Information Processing

Necessary Skills for Executive Employees

	Necessary Skills
1.	Problem Solving & Decision Making
2.	Organization & Planning Skills
3.	Verbal Communication
4.	Sales, Persuasion, & Influence
5.	Teamwork
6.	Written Communication
7.	Computer Skills
8.	Data Analysis
9.	Technical Knowledge
10.	Information Processing

Most Necessary Skills:

AgCareers.com asked agriculture and food companies which skills were most necessary for all employees. Employers ranked skills from one (1) being the most necessary, to five (5) being the least necessary:

Necessary Skills for All Levels of Employees

	Necessary Skills
1.	Problem Solving & Decision Making
2.	Organization & Planning Skills
3.	Teamwork
4.	Verbal Communication
5.	Technical Knowledge
6.	Computer Skills
7.	Written Communication
8.	Data Analysis
9.	Information Processing
10.	Sales, Persuasion, & Influence

01 Problem Solving & Decision Making

02 Organization & Planning Skills

03 Teamwork

04 Verbal Communication

05 Technical Knowledge

Summary:

The most necessary skills over all levels of employment (according to the average mean) are Problem Solving & Decision Making (3.36), Organization & Planning Skills (3.93), and Teamwork (4.26). The least necessary skills are Sales, Persuasion, & Influence (7.48), Information Processing (7.32), and Data Analysis (7.19).

Biggest Skill Gaps:

Biggest Skills Gaps for New Graduate Hires, Experienced New Hires, and Current Experienced Hires:

New Graduate Hires		Experienced New Hires		Current Experienced Hires	
Problem Solving & Decision Making	60.78%	Verbal Communication	41.18%	Problem Solving & Decision Making	58%
Verbal Communication	39.22%	Problem Solving & Decision Making	39.22%	Verbal Communication	36%
Organization & Planning Skills	33.33%	Organization & Planning Skills	31.37%	Organization & Planning Skills	32%

Summary:

For new graduate hires, experienced new hires, and current experienced employees in the US the biggest skill gaps are Problem Solving & Decision Making, Verbal Communication, and Organization & Planning Skills. Comparing this to the most necessary skills at all levels of employment, the three skills voted as having the biggest skill gaps were all included in the top five most necessary skills. This could be a sign that employers are struggling to find adequate new hires that possess work ready skills.

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