

Agriculture, Food, and Natural Resources Cluster	NH Occupational Projections					Future Outlook	2021 Wage Entry Level Median	Usual Education	Entry-Level Preparation		Apprentice	Military	NH License	Holland Interests			Career Pathways
	Employment		Avg. Annual Openings						Experience	Training				1 st	2 nd	3 rd	
	Occupation, SOC Code, and Description	2020	2030	Exits	Transfers		Total										
Agricultural and Food Science Technicians (19-4011): Work under supervision of agricultural scientists in food, fiber, and animal research. Assist with animal breeding and nutrition, and conduct tests and experiments to improve crop yield and quality or increase disease resistance in plants and animals.	20	23	0	2	2	↗	n/a n/a	Associate's degree	None	Moderate-term OJT				R	I	C	Food Products and Processing Systems
Agricultural Equipment Operators (45-2091): Drive and control farm equipment to till soil and to plant, cultivate, and harvest crops. May operate stationary equipment to perform post-harvest tasks, such as husking, shelling, and threshing.	226	263	10	28	42	↑	n/a n/a	No formal educational credential	None	Moderate-term OJT	★			R			Power, Structural and Technical Systems
Agricultural Workers, All Other (45-2099): All agricultural workers not listed separately.	20	22	1	2	3	↘	n/a n/a	No formal educational credential	None	Short-term OJT				R	E		Plant Systems
Animal Breeders (45-2021): Select and breed animals according to their genealogy, characteristics, and offspring. May require knowledge of artificial insemination techniques and equipment use. May involve keeping records on heats, birth intervals, or pedigree.	22	25	1	3	4	↗	n/a n/a	High school diploma or equivalent	None	Short-term OJT				R	I		Animal Systems
Animal Caretakers (39-2021): Feed, water, groom, bathe, exercise, or provide other care to promote and maintain the well-being of pets and other animals not raised for consumption, such as dogs, cats, race horses, ornamental fish or birds, zoo animals, and mice. Work in kennels, animal shelters, zoos, circuses, or aquariums.	1,564	2,204	121	156	341	↑	\$10.77 \$13.81	High school diploma or equivalent	None	Short-term OJT	★			R	C		Animal Systems
Animal Scientists (19-1011): Conduct research in the genetics, nutrition, reproduction, growth, and development of domestic farm animals.	n	n	n	n	n	↗	n/a n/a	Bachelor's degree	None	None				I	R		Animal Systems
Biological Technicians (19-4021): Assist biological and medical scientists in laboratories. Set up, operate, and maintain lab instruments and equipment, monitor experiments, make observations, and calculate and record results. May analyze organic substances, such as blood, food, and drugs.	470	505	12	49	65	↑	\$17.19 \$23.14	Bachelor's degree	None	None	★	★		R	I	C	Plant Systems
Butchers and Meat Cutters (51-3021): Cut, trim, or prepare consumer-sized portions of meat for use or sale in retail establishments.	530	524	21	39	59	↗	\$17.33 \$22.38	No formal educational credential	None	Long-term OJT	★			R	C	E	Food Products and Processing Systems
Environmental Engineering Technologists and Technicians (17-3025): Apply theory and principles of environmental engineering to modify, test, and operate equipment and devices used in the prevention, control, and remediation of environmental problems, including waste treatment and site remediation, under the direction of engineering professional.	34	40	1	2	4	↗	\$19.63 \$29.13	Associate's degree	None	None				R	I	C	Environmental Service Systems
Environmental Engineers (17-2081): Research, design, plan, or perform engineering duties in the prevention, control, and remediation of environmental hazards using various engineering disciplines. Work may include waste treatment, site remediation, or pollution control technology.	245	257	6	12	19	↘	\$31.95 \$48.22	Bachelor's degree	None	None		★	★	I	R	C	Environmental Service Systems
Environmental Science and Protection Technicians, Including Health (19-4091): Perform laboratory and field tests to monitor the environment and investigate sources of pollution, including those that affect health, under the direction of an environmental scientist, engineer, or other specialist.	113	128	3	11	16	↗	\$18.97 \$22.97	Associate's degree	None	None	★			I	R	C	Environmental Service Systems

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Fallers (45-4021): Use axes or chainsaws to fell trees using knowledge of tree characteristics and cutting techniques to control direction of fall and minimize tree damage.	n	n	n	n	n	⬇️	n/a n/a	High school diploma or equivalent	None	Moderate-term OJT	★			R	C		Natural Resources Systems	
Farm Equipment Mechanics and Service Technicians (49-3041): Diagnose, adjust, repair, or overhaul farm machinery and vehicles such as tractors, harvesters, dairy equipment, and irrigation systems.	112	130	4	8	14	↗️	\$13.63 \$22.55	High school diploma or equivalent	None	Long-term OJT	★			R	C	I	Power, Structural and Technical Systems	
Farmers, Ranchers, and Other Agricultural Managers (11-9013): Plan, direct, or coordinate the management or operation of farms, ranches, greenhouses, aquacultural operations, nurseries, timber tracts, or other agricultural establishments.	4,760	4,743	293	165	456	↗️	n/a n/a	High school diploma or equivalent	5 years or more	None	★			E	R	C	Agribusiness Systems	
Farmworkers and Laborers, Crop, Nursery, and Greenhouse (45-2092): Manually plant, cultivate, and harvest vegetables, fruits, nuts, horticultural specialties, and field crops. Use hand tools such as shovels, trowels, hoes, tampers, pruning hooks, shears, and knives.	2,108	2,219	92	247	350	↗️	\$11.26 \$14.23	No formal educational credential	None	Short-term OJT				R	C		Plant Systems	
Farmworkers, Farm, Ranch, and Aquacultural Animals (45-2093): Attend to live farm, ranch, or aquacultural animals that may include cattle, sheep, swine, goats, horses and other equines, poultry, finfish, shellfish, and bees.	844	901	37	100	143	↗️	\$11.41 \$14.33	No formal educational credential	None	Short-term OJT	★			R			Animal Systems	
First-Line Supervisors of Farming, Fishing, and Forestry Workers (45-1011): Directly supervise and coordinate the activities of agricultural, forestry, aquacultural, and related workers.	214	232	8	23	33	⬆️	\$18.73 \$23.37	High school diploma or equivalent	Less than 5 years	None	★			E	R	C	Food Products and Processing Systems	
Food and Tobacco Roasting, Baking, and Drying Machine Operators and Tenders (51-3091): Operate or tend food or tobacco roasting, baking, or drying equipment, including hearth ovens, kiln driers, roasters, char kilns, and vacuum drying equipment.	210	218	8	16	25	⬇️	\$16.60 \$17.68	No formal educational credential	None	Moderate-term OJT				R	C		Food Products and Processing Systems	
Food Batchmakers (51-3092): Set up and operate equipment that mixes or blends ingredients used in the manufacturing of food products. Includes candy makers and cheese makers.	330	356	16	26	45	⬆️	\$13.79 \$14.72	High school diploma or equivalent	None	Moderate-term OJT	★			R	C		Food Products and Processing Systems	
Food Cooking Machine Operators and Tenders (51-3093): Operate or tend cooking equipment, such as steam cooking vats, deep fry cookers, pressure cookers, kettles, and boilers to prepare food products.	31	34	2	3	5	⬇️	\$14.36 \$16.68	High school diploma or equivalent	None	Moderate-term OJT				R	C		Food Products and Processing Systems	
Food Processing Workers, All Other (51-3099): All food processing workers not listed separately.	118	129	4	8	13	⬇️	\$10.27 \$14.37	No formal educational credential	None	Moderate-term OJT				R	C		Food Products and Processing Systems	
Food Scientists and Technologists (19-1012): Use chemistry, microbiology, engineering, and other sciences to study food processing and deterioration; analyze food to determine vitamins, fat, sugar, and protein; discover new food sources; and find ways to package, preserve, store, or distribute food.	n	n	n	n	n	⬇️	\$35.02 \$45.86	Bachelor's degree	None	None	★			I	R	C	Food Products and Processing Systems	
Forest and Conservation Technicians (19-4093): Provide technical assistance regarding the conservation of soil, water, forests, or natural resources. May compile data on the characteristics of forest tracts, or train and lead forest workers in forest propagation and fire prevention and suppression.	75	76	2	7	9	⬇️	\$13.30 \$16.95	Associate's degree	None	None				R	I	E	Natural Resources Systems	

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	2020	2030	Exits	Transfers	Total		Median											
Forest and Conservation Workers (45-4011): Perform manual labor necessary to develop, maintain, or protect areas such as forests, woodlands, wetlands, and rangelands by raising seedlings, combating insects, pests, and diseases, and controlling water, erosion, and leaching of soil.	39	37	2	4	6	↓	\$14.18 \$14.43	High school diploma or equivalent	None	Moderate-term OJT				R	C	I	Natural Resources Systems	
Foresters (19-1032): Manage public and private forested lands for economic, recreational, and conservation purposes. May inventory type, amount, and location of standing timber, and appraise worth. May determine how to conserve wildlife habitats, creek beds, water quality, and soil stability.	120	130	2	9	12	↘	\$23.67 \$29.76	Bachelor's degree	None	None			★	R	I	E	Natural Resources Systems	
Geological and Hydrologic Technicians (19-4045): Support scientists and engineers in exploring, extracting, and monitoring natural resources, such as soil, natural gas, water, metallic ore, minerals, or petroleum. Analyze mud and drill cuttings. Chart pressure, temperature, and other characteristics of wells or bore holes.	38	40	1	4	5	↘	n/a n/a	Associate's degree	None	Moderate-term OJT	★	★		R	I	C	Natural Resources Systems	
Graders and Sorters, Agricultural Products (45-2041): Grade, sort, or classify unprocessed food and other agricultural products by size, weight, color, or condition.	41	41	2	4	6	↓	n/a n/a	No formal educational credential	None	Short-term OJT				R	C		Food Products and Processing Systems	
Hazardous Materials Removal Workers (47-4041): Identify, remove, pack, transport, or dispose of hazardous materials such as asbestos, lead paint, waste oil, fuel, radioactive materials, or contaminated soil. Training and certification in hazardous materials handling are usually required.	n	n	n	n	n	↑	\$18.42 \$21.92	High school diploma or equivalent	None	Moderate-term OJT		★	★	R	C		Environmental Service Systems	
Log Graders and Scalers (45-4023): Grade logs or estimate the marketable content or value of logs or pulpwood in sorting yards, millpond, log deck, or similar locations. Inspect logs for defects or measure logs to determine volume.	55	50	2	6	8	↓	\$16.93 \$23.17	High school diploma or equivalent	None	Moderate-term OJT				R	C		Natural Resources Systems	
Logging Equipment Operators (45-4022): Drive logging tractor or wheeled vehicle equipped with one or more accessories, such as bulldozer blade, frontal shear, grapple, logging arch, cable winches, hoisting rack, or crane boom, to fell tree; skid, load, unload, or stack logs; pull stumps; or clear brush.	240	247	9	28	38	↗	\$15.18 \$18.44	High school diploma or equivalent	None	Moderate-term OJT				R	I	C	Natural Resources Systems	
Logging Workers, All Other (45-4029): All logging workers not listed separately.	n	n	n	n	n	↓	n/a n/a	High school diploma or equivalent	None	Moderate-term OJT				R	C		Natural Resources Systems	
Meat, Poultry, and Fish Cutters and Trimmers (51-3022): Use hand or hand tools to perform routine cutting and trimming of meat, poultry, and seafood.	n	n	n	n	n	↓	\$10.62 \$14.01	No formal educational credential	None	Short-term OJT				R			Food Products and Processing Systems	
Natural Sciences Managers (11-9121): Plan, direct, or coordinate activities in such fields as life sciences, physical sciences, mathematics, statistics, and research and development in these fields.	208	224	4	11	17	↘	n/a n/a	Bachelor's degree	5 years or more	None		★		E	I		Natural Resources Systems	
Outdoor Power Equipment and Other Small Engine Mechanics (49-3053): Diagnose, adjust, repair, or overhaul small engines used to power lawn mowers, chain saws, recreational sporting equipment and related equipment.	321	341	14	22	38	↗	\$16.13 \$21.92	High school diploma or equivalent	None	Moderate-term OJT	★			R	C		Power, Structural and Technical Systems	

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	2020	2030	Exits	Transfers			Median										
Pest Control Workers (37-2021): Apply or release chemical solutions or toxic gases and set traps to kill or remove pests and vermin that infest buildings and surrounding areas.	279	304	8	31	41	⬆️	\$17.34 \$22.36	High school diploma or equivalent	None	Moderate-term OJT	★	★		R	C		Environmental Service Systems
Pesticide Handlers, Sprayers, and Applicators, Vegetation (37-3012): Mix or apply pesticides, herbicides, fungicides, or insecticides using sprays, dusts, vapors, soil incorporation, or chemical application on trees, shrubs, lawns, or crops. Specific training and/or State certification required.	120	136	6	11	19	↗️	\$18.88 \$24.88	High school diploma or equivalent	None	Moderate-term OJT	★		★	R	C		Plant Systems
Slaughterers and Meat Packers (51-3023): Work in slaughtering, meat packing, or wholesale establishments performing precision functions involving the preparation of meat. Work may include cutting standard or premium cuts of meat for marketing, making sausage, or wrapping meats.	n	n	n	n	n	⬇️	\$13.96 \$14.31	No formal educational credential	None	Short-term OJT	★			R	C		Food Products and Processing Systems
Soil and Plant Scientists (19-1013): Research breeding, physiology, production, yield, and management of crops and agricultural plants and trees, shrubs, or nursery stock, growth in soil, and pest control; or study soil chemical, physical, biological, or mineralogical composition for plant or crop growth.	n	n	n	n	n	↘️	\$31.23 \$38.53	Bachelor's degree	None	None	★		★	I	R		Plant Systems
Tree Trimmers and Pruners (37-3013): Cut away dead or excess branches from trees or shrubs to maintain right-of-way for roads, sidewalks, or utilities, or to improve tree appearance, health, and value. Use handsaws, hand pruners, clippers, or power pruners. Works off the ground in tree canopy.	429	452	19	38	59	↗️	\$11.31 \$18.83	High school diploma or equivalent	None	Short-term OJT	★			R			Plant Systems
Water and Wastewater Treatment Plant and System Operators (51-8031): Operate or control an entire process or system of machines, often through the use of control boards, to transfer or treat water or wastewater.	452	441	13	28	40	↗️	\$20.68 \$23.79	High school diploma or equivalent	None	Long-term OJT	★	★	★	R	C		Environmental Service Systems
Zoologists and Wildlife Biologists (19-1023): Study the origins, behavior, diseases, genetics, and life processes of animals and wildlife. May collect and analyze biological data to determine the environmental effects of present and potential use of land and water habitats.	86	88	1	6	7	↘️	\$21.41 \$32.40	Bachelor's degree	None	None				I	R		Natural Resources Systems