



## Fundamentals of Animal Science Certification



The Elanco Fundamentals of Animal Science Certification verifies individuals have acquired the foundational knowledge and skills to pursue a career within the animal science industry.

### Certification Exam

The certification exam, tested for on the iCEV platform, consists of 100 questions and assesses knowledge and skills from the following weighted industry standards:



15%

Animal Breeding



20%

Animal Health & Wellness



25%

Animal Management Practices



15%

Animal Nutrition



25%

General Animal Science

### Meeting the Industry Need

- Assesses Competencies Based on Weighted Industry-Valued & Industry-Accepted Standards
- Validates Knowledge & Skills
- Allows Employers to Identify & Connect with Skilled Candidates
- Jump-Starts Individuals' Careers

### Industry Standards Breakdown

#### General Animal Science

Origin & Evolution of Livestock  
Terms & Terminology (beef, dairy, horse, sheep, goat, swine, poultry)  
External Anatomy  
Meat Inspection Regulations  
Harvesting Process

#### Animal Breeding

Animal Microgenetics (cell division, embryo development, structure/composition of genes)  
Breeding Systems (grading up, crossbreeding, inbreeding, linebreeding)  
Breeding Methods (pen, stud, artificial insemination, embryo transfer) Cloning

#### Animal Health & Wellness

Common Diseases (nutritional, bacterial, viral, parasitic, fungal, genetic)  
Common Parasites (internal, external)  
Basic Surgical Procedures (dehorning, castration, tail docking, teeth clipping, lancing)  
Injection Methods (intramuscular, subcutaneous, intravenous)  
Injection & Vaccination Rules and Regulations

#### Animal Nutrition

Digestive Systems (ruminant, monogastric)  
Digestive Requirements & Nutritional Needs (ruminant, monogastric)  
Balanced Rations  
Feeds & Additives  
Hays & Legumes

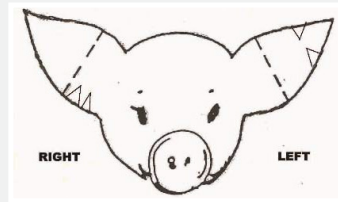
#### Animal Management Practices

Production Systems  
Handling & Equipment  
Nutrition & Health  
Selection & Breeding  
Management Practices

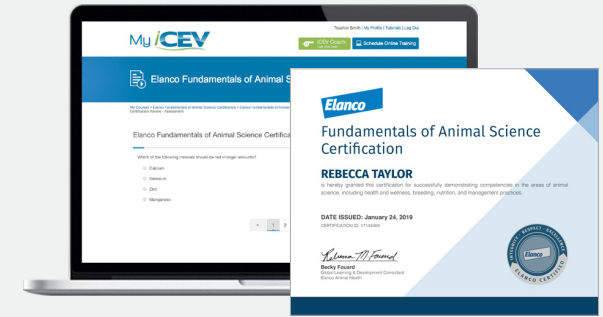
## Example Assessment Questions

- If a lamb consumes three pounds of feed per day, about how many pounds of water should he consume?
  - 6 to 15 lbs.
  - 2 to 5 lbs.
  - 10 to 14 lbs.
  - 15 to 18 lbs.
- Diarrhea, straining, loss of appetite and fever are symptoms common with which of the following diseases?
  - Haemonchus contortus
  - Coccidiosis
  - Milk fever
  - White muscle disease
- Weighing all EPDs, overall, which of the following bulls is superior to the rest?
 

	ID	DOB	BW	WW	YW	Milk	REA	Marbling
A	1	9/25/12	1.7	52	92	37	0.68	0.43
B	2	9/13/12	2.8	47	81	23	0.23	0.40
C	3	10/2/12	0.0	53	102	36	0.98	0.59
D	4	9/8/12	1.2	50	90	38	0.45	0.24
	Angus Breed Averages		1.8	46	83	23	0.13	0.39



- The image illustrates which of the following litter and pig numbers?
  - 2 - 12
  - 12 - 2
  - 2 - 10
  - 10 - 2
- Basic nutrients include:
  - Water
  - Protein
  - Carbohydrates
  - Fat
  - Vitamins
  - Minerals



## Testing Platform

Elanco utilizes iCEV, a division of CEV Multimedia, as the testing platform for this certification.

iCEV fulfills the following responsibilities:

- Provides secure testing technology for certification exams
- Regulates testing environments
- Works with secondary and post-secondary academic institutions, workforce development associations and the public at large to offer certification options for career advancement
- Provides certification verification to employers for potential job applicants
- Offers optional certification exam preparation materials

“Supporting an emerging workforce that is interested in raising awareness about global food security and celebrating the human-animal bond is why Elanco decided to get involved.”

### Larbi Van Lier

Senior Director, Head of Asia Pacific (APAC)  
Elanco

## About Elanco

Elanco is a global animal health company that develops products and knowledge services to prevent and treat disease in food, animals and pets in more than 90 countries. With a 64-year heritage, Elanco rigorously innovates to improve the health of animals and benefit customers, while fostering an inclusive, cause-driven culture for more than 5,800 employees. Elanco is driven by their vision of food and companionship enriching life - all to advance the health of animals, people and the planet.