

Instructors

The course will be led by Greg Aldrich, research associate professor and pet food program coordinator at Kansas State University. Aldrich has been formulating foods for animals for more than 30 years and has been involved with formula development for some of the leading pet food companies as a nutritionist and consultant for more than 20 years.

He will be joined by other faculty to provide input on processing, nutrition, sensory and regulatory affairs. Also, representatives from the major formulation software companies will be on hand to assist students with installation, testing and use of their software.

Hands on learning exercises will be led by Charles Stark, associate professor in feed technology, in the O.H. Kruse Feed Mill, and Sajid Alavi, professor and extrusion processing specialist. Aldrich will lead canning exercises and baking at AIB International. He will also conduct a review of nutrition, regulations and shelf-life considerations, with lectures on palatability and sensory attributes of pet foods provided by Kadri Koppel, assistant professor of nutrition.

Continuing Education Credit

Participants can sign-up for continuing education credit, and (or) K-State students can enroll in course credit (1 unit; GRSC 750) offered during the intersession. All attendees will receive a letter of recognition for course completion.

Accommodations

Hotel and accommodations have been made as a block for participants at the Manhattan Holiday Inn–Campus (785-539-7531). Breakfast will be provided by the hotel, and daily transportation to and from the IGP Institute will be provided by the university. Lunch and light snacks at breaks are included in the course registration. One “Awards” dinner is also provided in the registration. All other meals and incidentals are the responsibility of the participants. Arrangements for pick-up and drop-off at the Manhattan Regional Airport can be made upon request.

Registration

Registration information can be found on the IGP Institute events website under current offerings.

<https://igpevents.grains.ksu.edu>



IGP Institute

**KANSAS STATE
UNIVERSITY**

IGP Institute
Department of Grain Science and Industry

1980 Kimball Avenue, 102 IGP Institute Conference Center | Manhattan, KS 66506-7000
Tel. 785-532-4070 | Fax 785-532-6080 | www.grains.k-state.edu/igp | igp@ksu.edu

IGP-KSU Pet Food Formulation for Commercial Production



January 13–17, 2020

**IGP Institute Conference Center
Kansas State University
Manhattan, Kansas**

**KANSAS STATE
UNIVERSITY**



Course Participant Goals

Upon completion of the training, participants will:

- Understand the raw ingredients used to produce pet foods
- Know the fundamental principles of dog and cat nutrition and dietary needs
- Appreciate the processes involved with producing pet foods
- Learn the regulatory constraints regarding claims and requirements
- Understand the transportation and storage factors involved with marketing effective foods for companion animals
- Explore the range of formulation common to the trade.
- Gain skills using computer assisted software for formulating effective dry extruded, baked and canned pet foods and treats.
- Create pet food formulas from “concepts,” “reverse engineer existing pet foods,” and “troubleshoot pet food production and quality control compliance issues using formulation software.

Course Materials

Participants will need a Windows 10 laptop for the best experience from the class.

Learning Objective

Students completing this course will become proficient at formulating pet foods and have a working knowledge of ingredients, processes, and the software necessary to create new products. They will also be able to revise existing formulas, and perform business and production analyses.

Schedule

January 13, 2020 (Monday)			
Time	Activity	Location	Resp
0800	Arrive IGP	IGP	IGP staff
0830	Hand out materials		Aldrich, Miller
0900	Introductions		Aldrich et al.,
0900–1200	Loading software, introduction to operations		Aldrich and Software reps
1200–1300	Lunch		
1300–1500	Nutrition constraints and sensory		Aldrich, Koppel
1500–1550	Break		
1550–1700	Ingredient, handling and constraints		Aldrich, Stark
1700–1730	Travel to hotel		IGP Staff
1800–2000	Supper		
January 14, 2020 (Tuesday)			
Time	Activity	Location	Resp
0800–0830	Travel to IGP	IGP	IGP Staff
0830–1000	Introduction to extrusion processing		Alavi, Maichel
1000–1030	Break and walk to BIVAP	BIVAP	IGP Staff
1030–1200	Extrusion demonstration	Ext Lab	Alavi, Maichel
1200–1300	Lunch		
1300–1500	Introduction to canning	IGP	Aldrich
1500–1530	Break and trip to canning lab		IGP Staff
1530–1700	Canning demonstration	FT101a	Aldrich
1700–1800	Trip to hotel		IGP Staff
1800–2000	Supper		
January 15, 2020 (Wednesday)			
Time	Activity	Location	Resp
0800–0830	Trip to IGP	IGP	IGP Staff
0830–1000	Example formulation—simple		Aldrich
1000–1030	Break		
1030–1200	Formulation—continued practice		Aldrich

1200–1300	Lunch		
1300–1500	Trip to ALB—baking overview and demonstration	ALB	IGP Staff; Aldrich, AIB Staff
1500–1530	Break and trip to IGP	IGP	IGP Staff
1530–1700	Formulation—baked treat, canned food		Aldrich
1700–1800	Trip to Hotel		IGP Staff
1800–2000	Supper		tbd
January 16, 2020 (Thursday)			
Time	Activity	Location	Resp
0800–0830	Trip to IGP	IGP	IGP Staff
0830–1000	Formulation reverse engineer		Aldrich
1000–1030	Break		
1030–1200	Formulation—meat based		Aldrich
1200–1300	Lunch		
1300–1500	Formulation—multi-step		Aldrich
1500–1530	Break		
1530–1700	Formulation—multi-component		Aldrich
1700–1800	Trip to hotel		IGP Staff
1800–2000	Supper, Awards Banquet	Little Apple Brewery	Aldrich, Instructors
January 17, 2020 (Friday)			
Time	Activity	Location	Resp
0800–0830	Trip to IGP	IGP	
0830–1000	Regulations for labeling		Aldrich
1000–1030	Break		
1030–1200	Formulation—new formats		Aldrich
1200–1300	Lunch—certificates of completion		Aldrich, Alavi
1300–1500	Nutrition frontiers, question and answer		Aldrich, Alavi
1500	Dismiss		