



IGP Institute
2022 Year in Review

IGP Supporters and Partners

Supporters



Partners



Table of Contents

Director's Message	2-3
IGP Institute Participant Map	4-5
2022 Features	
Knead to Know	6-7
Learning on Location	8-9
Partnering with Purpose	10-11
Educating the Americas	12-13
Sorghum Solution	14-15
2022 IGP Institute Year in Photos	16-19
2022 By the Numbers	20-23
Our Facilities	24-25
Faculty and Staff Directory	26-27
Course Supporters	28



Director's Message



Hulya Dogan
Interim Director

2022 was a year of change for IGP as we transitioned into a post-COVID-19 environment and gained new leadership within the Department of Grain Science and Industry and at the IGP Institute.

The lifting of international travel restrictions allowed many of our courses and projects to shift from virtual online delivery back to on-site delivery. Through this shift back we noted an increase in the value placed on traditional face-to-face training and hands-on education. We saw a return to on-site feed and flour milling courses hosted in our mills and labs, and many of our clients and partners expressed that they were happy to be back to meeting in person.

The continuing supply chain disruptions caused by COVID-19 along with the February invasion of Ukraine by Russia had an immediate and profound impact on the international trade flow of wheat, coarse grains, and oilseeds. Historically tight supplies across all agricultural commodities have heightened the concern for food

security. In addition, a rise in inflation and increasing interest rates have challenged established agribusiness activities.

Summer months saw dry weather impact crop production across the western North American grain belt, and transportation issues came to the front late in the year as low river levels on the Mississippi River and the threat of a pending rail strike complicated logistical concerns. These events have again highlighted the vulnerability of supply chains.

As international issues and trade flow changed, so did the delivery of IGP programs. This summer IGP initiated its inaugural Grain Export Supply Chain Expedition course commencing in Chicago and following the path of grain commodities from farm to international export. This course gave international buyers a chance to experience the different aspects of the supply chain including the opportunity to meet the farmers who grow the crops and the industry people responsible for organizing, storing, and transporting their grain to overseas destinations.

IGP helped fill another need by creating the first baking-specific course offered in partnership with industry personnel and the K-State grain science baking faculty on campus. The IGP-KSU Baking Basics: Breads, Cakes, and Cookies course provided a broad overview of the ingredients and processes needed to make some of the popular baked products in today's markets. Participants learned through lectures and hands-on sessions how to identify the basic functions of ingredients, their effects on the final products, and demonstrations of the equipment used in the baking process.

We're excited about the new courses we have developed and implemented this year and will continue to work with our commodity and industry partners to meet their needs as we move forward in 2023.

Sincerely,

Hulya Dogan
IGP Institute Interim Director
Professor and Interim Head,
Department of Grain Science and Industry



The IGP Institute and the department hosted many visitors during 2022 including a delegation from the Taiwan Agricultural Trade Goodwill Mission in September. The group included Kansas Secretary of Agriculture, Mike Beam, and other state government representatives. During their visit to IGP, the grain science department provided an overview of our programs and gave them a tour of the Hal Ross Flour Mill.

Before arriving in Manhattan, the group met with Kansas Governor, Laura Kelly, in Topeka and signed an agreement to purchase 66 million bushels of wheat from U.S. farmers over the next two years. The grain deal, which is worth approximately \$576 million, will be fulfilled significantly by Kansas wheat farms.

IGP Institute Mission

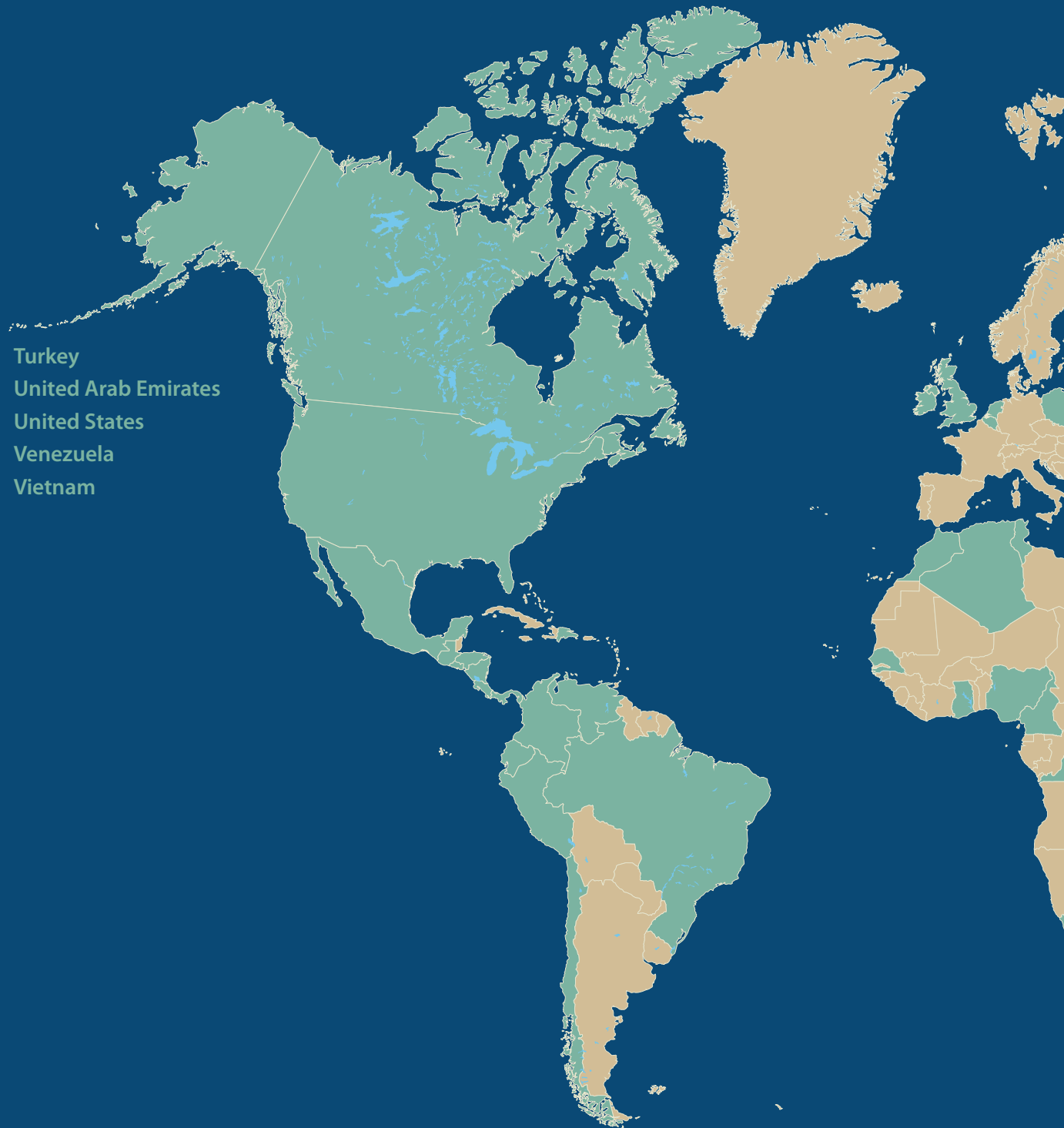
*To provide
technical,
research-
based training
benefiting
industry
professionals
globally and
enhancing
the market
preference
for U.S. grains
and oilseeds.*

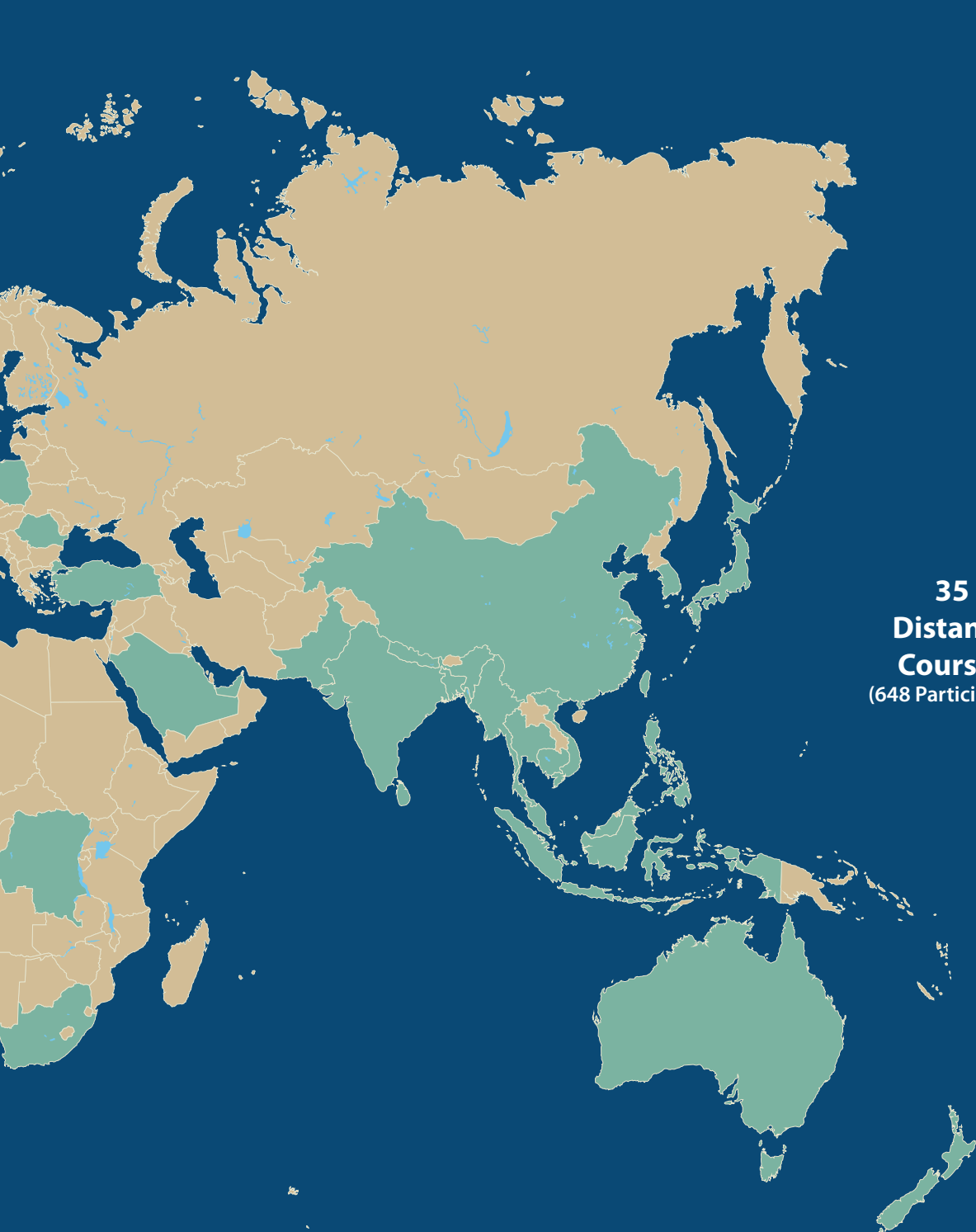
2022

1,242 Participants

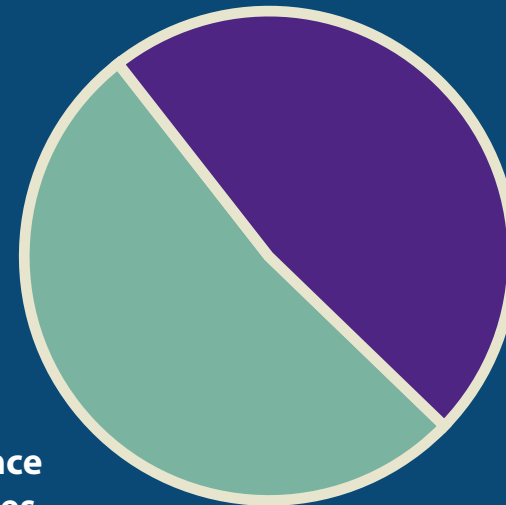
51 Countries

Algeria	Mexico	Turkey
Australia	Morocco	United Arab Emirates
Bangladesh	Myanmar	United States
Belgium	Nepal	Venezuela
Brazil	Netherlands	Vietnam
Cambodia	New Zealand	
Canada	Nicaragua	
Chile	Nigeria	
China	Pakistan	
Colombia	Panama	
Costa Rica	Peru	
Dominican Republic	Philippines	
Ecuador	Poland	
El Salvador	Romania	
England	Saudi Arabia	
Ghana	Senegal	
Guatemala	Singapore	
Honduras	South Africa	
India	South Korea	
Indonesia	Sri Lanka	
Ireland	Taiwan	
Japan	Thailand	
Malaysia	Tunisia	





Total Participants



**30
On-Site
Courses**
(594 Participants)

**35
Distance
Courses**
(648 Participants)

Impact



Additional IGP Institute Outreach
Workshops, Research, Presentations
(8,685 Attendees)



Knead to Know

IGP expands subject areas to include the first baking training course.

As the years have passed, the need for training within the baking industry worldwide has increased tremendously. With fewer baking training programs being offered across the U.S., the IGP Institute stepped in to provide a new baking training course focused on Baking Basics: Breads, Cakes, and Cookies.

Shawn Thiele, Associate Director; Flour Milling and Grain Processing Curriculum Manager at the IGP Institute came up with the idea and managed the course. Bakery Science and Industry faculty developed the content and assisted with hands-on training in the department labs. Grain Craft also provided training in their lab located at the Kansas Wheat Innovation Center in Manhattan, Kansas.

The course was introduced this year to help industry professionals understand the basic functions of baking ingredients, recognize key pieces of equipment in the baking process, and use key production steps to create bread, cakes, and cookies.

Participants learned through classroom activities including lectures ranging from flour quality to production processing,

and hands-on activities within the baking lab where they produced the three selected products.

Although it was the course's first year for participants, there was an



overwhelming response from industry professionals to join the training. The course capacity was met at 15 people, with numerous others on the waiting list. Although the number of participants couldn't be increased at the time, Thiele believes that this

course is essential for the future of the grain industry.

"It's important for IGP to continue to expand its training activities to meet the needs of the grain industry. By creating baking training opportunities through IGP, we can further educate participants on the entire grain supply chain beginning with purchasing, flour milling, grain processing, and all the way to finished products now," Thiele says. "This will also allow IGP to provide technical training to international clients who purchase U.S. grains and help them optimize their finished products."

The IGP Institute plans to host this course next year, as well as offer other baking courses including advanced baking courses in the areas of breads, cakes, and cookies, and create an online virtual and on-demand baking program for industry professionals.



Course participants measure the results from baking cakes with various types of flour to see how different ingredients and types of flour affect the final characteristics of baked products.



Learning on Location

Grain export supply chain expedition follows the grain from farm to export.

From farms to export facilities, course participants of the IGP–KSU Grain Export Supply Chain Expedition saw firsthand how the U.S. grain supply chain works full circle.

Hosted by the IGP Institute, the course was led by Guy Allen, grain marketing and risk management curriculum manager and agricultural economist. Joining him were 11 members from the Korea Overseas Agro-Resources Development Association and representatives from the U.S. Department of Agriculture and Kansas Department of Agriculture.

Beginning the course in Chicago, Illinois, participants began their thorough look into the supply chain and its components.

The group drove south to visit grain and oilseed producers, a local grain elevator, rail facilities, and river terminals along the Mississippi and Illinois rivers. They learned about commercial barge transportation and toured a container loading facility before completing the first part of their trip in St. Louis, Missouri. They flew from St. Louis to Portland, Oregon to see a grain export terminal as the final destination to end the course.

These locations provided participants with better insight and understanding of the operations within the grain export supply chain and how the daily activities are driven by market pricing dynamics.



“The course was valuable in that we had the opportunity to visit every important stage of the grain supply chain in the United States,” says Yongzik Lee, participant and grain trader for POSCO International Corporation. “I had prior knowledge of the grain supply chain in a

general sense from books and lectures, but visiting the sites and talking to real professionals conducting everyday operating and merchandising jobs was a completely whole new level.”

Allen expects this course to be held annually alongside other similar courses reach niche audiences and interests upon request.

“This course, training, and experience is unique and one that is always worth the time and effort to see the value chain firsthand and gain a deeper understanding of the U.S. system, the farmers producing the grain, the terminals and transportation sector moving the grain, and the grading system analyzing the grain they purchase,” Allen says.





Guy Allen, IGP Agricultural Economist and Grain Marketing and Risk Management Curriculum Manager (right), and course participants visited Encompass Grain – Allen Station in San Jose, Illinois, as one of the stops during the course.



Partnering with Purpose

IGP Institute continues to work with key partners for technical training.

The IGP Institute's mission stresses the importance of educating industry professionals globally. To complete the mission, custom courses have been created to meet the specific needs of industry professionals around the world through partnerships with the USDA Cochran Fellowship Program, U.S. Wheat Associates, and other industry and commodity organizations.

The goal of these courses is to promote the sales and use of Kansas and U.S. grain commodities by educating international buyers and consumers on the values and benefits of U.S. grains.

In 2022, the IGP Institute hosted four partnership courses for custom wheat training. This included the U.S. Wheat Associates programs; IGP Advanced Milling course for South Korea, with five participants from South Korea, and the Core Competency Training for U.S. Wheat staff that hosted 16 participants from 10 countries. The USDA Cochran program also worked with IGP to hold the U.S. Wheat Promotion for Vietnam course with seven participants, and the

U.S. Wheat Marketing and Promotion course for Morocco and Tunisia hosted nine participants from the two respective countries.

The courses provided an understanding of the process of buying U.S. wheat for their respective countries, the value of U.S. wheat as an imported product, wheat production and specifications,



grain handling and milling, and the effects of grain quality on finished products. Participants visited farms and commercial company locations including elevators, mills, and export facilities for an overview of the entire industry.

"The programs expose the Fellows to the U.S. wheat supply chain and industry and assists with identifying new market

opportunities for U.S.-grown wheat and wheat products," says Shawn Thiele, program instructor and associate director of the IGP Institute. "The programs help expand market access for U.S. wheat classes in foreign locations and increase the capacity for extension and participation in international trade."

The IGP Institute plans to build upon its relationships with national commodity partners and organizations to continue to provide technical training promoting the quality and uses of U.S. grains.

"We strive to be the go-to institute for our partners and to deliver the highest quality and all-around best training experience available today," Thiele says.





Shawn Thiele, IGP Associate Director and Flour Milling and Grain Processing Curriculum Manager, listens along with participants from South Korea as a Cargill employee explains the board that tracks grain stored in their Salina, Kansas, elevator.



Educating the Americas

The IGP Institute joins Zamorano University for USSEC Latin America course.

Excellence in education begins with the IGP Institute. In 2021, the IGP Institute was awarded as the Center Lead for the Soybean Excellence Center (SEC) for the Americas by the United States Soybean Export Council (USSEC). With this title, the IGP Institute helped initiate on-site courses in Latin America to continue education through the SEC Professional Certificate.

The on-site courses were held at Zamorano University in Honduras after COVID-19 travel restrictions lifted to Latin America. In conjunction with Zamorano University and Auburn University, the courses taught were based on two different track focuses including Poultry Production and Nutrition, and Feed Manufacturing to build knowledge and train industry professionals.

Carlos Campabadal, IGP Institute Feed Manufacturing and Grain Quality Management Curriculum Manager serves as the SEC Americas Center Lead Director. In this role, Campabadal is the course manager and organizer for all

SEC Professional Certificate courses and taught through the Feed Manufacturing Basic Level Course.

Each course had around 30 participants from 11 Latin American countries, for a total of 120 participants throughout the

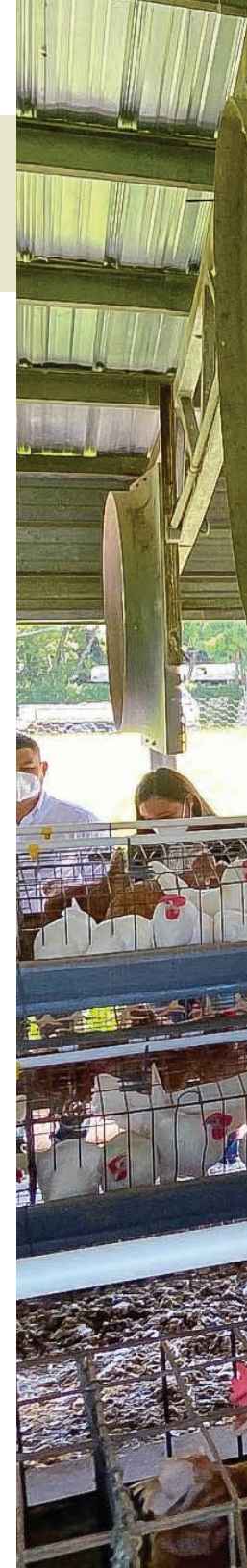


four courses. This reach impacted many industry professionals who may have not had the opportunity to attend educational courses in their technical field.

Overall, the courses were well received by the participants. USSEC supports continuing this type of education through SEC programs to benefit industry

members. Campabadal believes that if there is more funding, the number of courses offerings will increase for 2023.

Zamorano University is a private university that specializes in secondary education within agriculture, including majors from food science to agribusiness. Throughout the years, Zamorano has developed many relationships with Land Grant Universities across the United States to build upon student success.





SEC Americas Poultry Basic Course participants visited Zamorano University Poultry Research Facilities as part of the hands-on learning experience .



Sorghum Solution

Feed millers and nutritionists benefit from sorghum-based feed course.

As one of the most drought-resistant grains on the market, the use of sorghum in feed has become more prevalent. To learn the benefits and mechanisms of using sorghum in animal feed, the IGP Institute held the IGP Feed Manufacturing course, emphasizing the use of sorghum throughout specialized lectures.

Twelve participants from Mexico representing jobs ranging from animal nutritionists to feed millers participated in the course led by Carlos Campabadal, feed manufacturing and grain management curriculum manager.

During their time at IGP, the participants attended lectures and hands-on demonstrations to visualize basic feed manufacturing techniques as well as extra activities aimed at understanding how sorghum is grown and then used in the feed mill.

These activities included visiting a grain elevator that handles sorghum, a Kansas farm specializing in growing sorghum, and meeting staff from the U.S. Sorghum Checkoff Program to learn more in-depth

concepts about sorghum and the way it can be used.

Topics covered within the course stressed the importance of grain storage and pest control, particle size reduction, extrusion, pelleting, feed ingredient handling, and the effects of feed processing on animal nutrition.



“The Mexican sorghum trade team took advantage of the IGP Feed Manufacturing course to clear their technical questions and we addressed them in detail in relation to sorghum. Questions asked ranged from particle size reduction of sorghum to the overall

effects of using sorghum in the different animal nutrition diets,” says Campabadal.

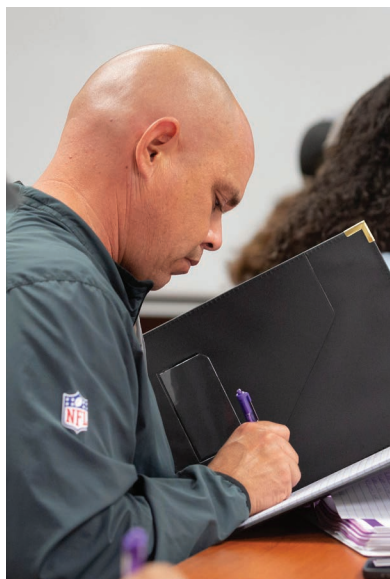
This course was sponsored by the U.S. Grains Council, Kansas Grain Sorghum Commission, and the U.S. Sorghum Checkoff Program to help promote and increase knowledge of using sorghum in animal feed products. Campabadal hopes that this will increase interest to have a future course dedicated to sorghum development.



Carlos Campabadal, IGP Institute Feed Milling and Grain Quality Management Curriculum Manager, explains maintenance and sanitation procedures during a tour of the O.H. Kruse Feed Technology and Innovation Center.



2022 IGP Institute Year in Photos







2022 IGP Institute Year in Photos







2022 By the Numbers

30 On-site Courses • 594 Participants

On-site Courses	Month	Participants	Countries
IGP–KSU Flour Milling for State Wheat Commissioners and Staff	January	12	U.S.
IGP–KSU Pet Food Formulation for Commercial Production	January	30	Canada, China, Indonesia, Pakistan, U.S.
IAOM–KSU Introduction to Flour Milling	January	9	U.S.
NGFA–KSU Food Safety Modernization Act Feed Industry Training	February	32	U.S.
Buhler–KSU Expert Milling	February	10	Canada, Indonesia, U.S.
Buhler–KSU Executive Milling (English)	March	10	U.S., Indonesia, Nigeria
SEC Americas Poultry Basic	March	22	Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Peru, Venezuela
U.S. Wheat–IGP Core Competency Workshop	March	16	Morocco, Mexico, South Korea, Philippines, Chile, South Africa, Singapore, Taiwan, Netherlands, U.S.
USSEC Stepping Up with Soy –Olathe Campus	April	37	Guatemala, Mexico, El Salvador, Panama, Dominican Republic, Peru, Honduras, Colombia, Costa Rica, Ecuador, Venezuela
IGP–USSEC South Asia: Grain Procurement, Purchasing and Supply Chain	May	10	India, United Arab Emirates, Pakistan, Sri Lanka, Bangladesh, England
USSEC Feed Manufacturing and Nutrition in Aquaculture*	May	42	Hybrid; numbers counted for distance AND on-site
IGP–KSU Baking Basics	May	15	U.S.
SEC Americas Poultry Basic	June	27	Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Peru, Venezuela
IGP–KSU Feed Manufacturing	June	65	Brazil, Saudi Arabia, U.S., Costa Rica, Ghana, Nigeria, Senegal, Cambodia, Mexico
IAOM–KSU Introduction to Flour Milling	July	18	Canada, U.S.
Cochran U.S. Wheat Promotion for Vietnam	July	7	Vietnam
Buhler–KSU Executive Milling (Spanish)	August	7	U.S., Chile, Colombia
Pet Food Workshop	August	26	Algeria, U.S., Ireland, Colombia

On-site Courses	Month	Participants	Countries
Extrusion Workshop	August	41	U.S., Ireland, India, Canada, Colombia, El Salvador, Costa Rica
NGFA–KSU Food Safety Modernization Act Feed Industry Training	August	37	U.S.
IAOM–KSU Flour and Dough Analysis	August	19	U.S., Canada, New Zealand, Japan
IAOM–KSU Basic Milling Principles	September	14	U.S.
IAOM–KSU Advanced Milling Principles	September	15	U.S., Japan, Guatemala, El Salvador
U.S. Wheat–IGP Advanced Flour Milling for South Korea	September	5	South Korea
Cochran U.S. Wheat Market- Morocco and Tunisia	October	9	Morocco, Tunisia
Buhler–KSU Executive Milling (English)	November	9	U.S., Canada, Pakistan
NGFA–KSU Food Safety Modernization Act Feed Industry Training	November	25	U.S.
Buhler–KSU Flowsheet Technology	November	7	U.S., Guatemala
Flour Milling for Wheat Commissioners and Staff	December	18	U.S.



2022 By the Numbers

35 Distance Courses • 648 Participants

Distance Courses	Month	Participants	Countries
SEC Nigeria Poultry Basic	March	25	Nigeria
SEC Asia Poultry Basic	March–April	37	India, Indonesia, Malaysia, Myanmar, Nepal, Pakistan, Philippines, Sri Lanka, Thailand, Vietnam
SEC Nigeria Poultry Basic	April	25	Nigeria
IGP–USGC SEA: Grain Procurement and Purchasing	April	33	Australia, Bangladesh, Indonesia, Malaysia, New Zealand, Philippines, Taiwan, Vietnam
AFIA 500A: Overview of U.S. Feed Industry and History*	April–June	4	N/A
AFIA 500B: Batching, Mixing and Particle Size Reduction*	April–June	8	N/A
AFIA 500C: Pelleting Process*	April–June	4	N/A
AFIA 500D: Finished Product Packaging and Bulk Loadout*	April–June	4	N/A
AFIA 500E: Basics of Quality Assurance*	April–June	3	N/A
AFIA 500F: Boilers and Boiler Efficiency*	April–June	2	N/A
AFIA 500G: Preventive Maintenance, Sanitation and Energy Conservation*	April–June	3	N/A
IGP–USGC South Asia: Grain Procurement and Purchasing	May	25	Bangladesh, India, Nepal, Pakistan, Sri Lanka, U.S.
SEC Asia Feed Manufacturing Basic	May	64	India, Indonesia, Malaysia, Nepal, Philippines, Sri Lanka, Thailand, Vietnam
USSEC Feed Manufacturing and Nutrition in Aquaculture	June	42	See on-site course list
IGP–KSU Pet Food Formulation for Commercial Production	June	15	Algeria, Belgium, Canada, Ecuador, India, Malaysia, Myanmar, Philippines, U.S.
SEC Nigeria Poultry Intermediate	June	25	Nigeria
AFIA 500B: Batching, Mixing and Particle Size Reduction*	July–Sept.	6	N/A
AFIA 500C: Pelleting Process*	July–Sept.	7	N/A
AFIA 500D: Finished Product Packaging and Bulk Loadout*	July–Sept.	6	N/A

Distance Courses	Month	Participants	Countries
SEC Nigeria Poultry Basic	August	25	Nigeria
AFIA/KSU 500: Fundamentals of Feed Manufacturing	August	40	Brazil, South Korea, U.S.
AFIA/KSU 500: Fundamentals of Feed Manufacturing (USSEC)	August	40	Japan, Nigeria, Tunisia, Turkey, U.S.
SEC Nigeria Poultry Basic	September	25	Nigeria
SEC Nigeria Poultry Basic	October	25	Nigeria
AFIA/KSU 500: Fundamentals of Feed Manufacturing	October	40	Guatemala, Morocco, Poland, Romania, South Africa, Turkey, U.S.
AFIA 500A: Overview of U.S. Feed Industry and History*	Oct.–Dec.	4	N/A
AFIA 500B: Batching, Mixing and Particle Size Reduction*	Oct.–Dec.	4	N/A
AFIA 500C: Pelleting Process*	Oct.–Dec.	8	N/A
AFIA 500D: Finished Product Packaging and Bulk Loadout*	Oct.–Dec.	6	N/A
AFIA 500E: Basics of Quality Assurance*	Oct.–Dec.	5	N/A
AFIA 500F: Boilers and Boiler Efficiency*	Oct.–Dec.	3	N/A
AFIA 500G: Preventive Maintenance, Sanitation and Energy Conservation*	Oct.–Dec.	4	N/A
SEC Nigeria Poultry Intermediate	November	25	Nigeria
SEC Nigeria Feed Manufacturing Track – Train the Trainer Intermediate Level	December	6	Nigeria
SEC Nigeria Feed Manufacturing Basic (1 of 2)	December	25	Nigeria
SEC Nigeria Feed Manufacturing Basic (2 of 2)	December	25	Nigeria

*on-demand courses from the Global Campus Canvas Catalog



Our Facilities



IGP Institute Conference Center – our primary building for hosting course participants featuring meeting spaces, technology-enhanced classrooms, and dining facilities



Bioprocessing and Industrial Value Added Products (BIVAP) Innovation Center – research facility for bioprocessing and renewable energy, biomaterials, and extrusion laboratories



Hal Ross Flour Mill – state-of-the-art pilot scale flour mill used for teaching, research, and industry training on full-scale equipment and control systems found in commercial flour mills



O.H. Kruse Feed Technology Innovation Center – a modern feed mill used for teaching feed production, pet food development, grain handling, and featuring an embedded BSL-2 research facility



Shellenberger Hall – home of offices and classrooms for the Department of Grain Science and Industry on the Kansas State University main campus



Shellenberger Baking Laboratory – IGP course participants bake cakes, bread, and cookies with different types of flour to see the effects on the finished products



Shellenberger Milling Laboratory – table-top milling equipment provides a hands-on understanding of the basic grinding techniques used in the flour milling process



Shellenberger Milling Laboratory – small-scale milling and sifting equipment is also available for teaching and research use



Faculty and Staff Directory

Core Staff



Hulya Dogan

Interim IGP Institute Director and Grain
Science and Industry Department Head
dogan@ksu.edu



Shawn Thiele

Flour Milling and Grain Processing
Curriculum Manager, Associate Director
smt9999@ksu.edu



Pat Hackenberg

Educational Media Coordinator
phack@ksu.edu



Guy H. Allen

Grain Marketing and Risk Management
Curriculum Manager, Agricultural
Economist
guyhallen@ksu.edu



Carlos A. Campabadal

Feed Manufacturing and Grain Quality
Management Curriculum Manager,
Spanish Outreach Coordinator
campa@ksu.edu



Lisa Markley

Events Coordinator
llong@ksu.edu

Contributing Faculty

Grain Science and Industry

Sajid Alavi

Grain Science and Industry
Kansas State University

Greg Aldrich

Grain Science and Industry
Kansas State University

Paul Blodgett

Grain Science and Industry
Kansas State University

Fran Churchill

Grain Science and Industry
Kansas State University

Aaron Clanton

Grain Science and Industry
Kansas State University

Elisa Karkle

Grain Science and Industry
Kansas State University

Chad Paulk

Grain Science and Industry
Kansas State University

Kaliramesh Siliveru

Grain Science and Industry
Kansas State University

Jason Watt

Grain Science and Industry
Kansas State University

Other Faculty

Vincent Amanor-Boadu

Agricultural Economics
Kansas State University

Art Barnaby

Agricultural Economics
Kansas State University

Allen Featherstone

Agricultural Economics
Kansas State University

Bob Goodband

Animal Sciences and Industry
Kansas State University

Keith Harris

Agricultural Economics
Kansas State University

Mary Knapp

Agronomy
Kansas State University

Brian Lindshield

Food, Nutrition, Dietetics and Health
Kansas State University

Romulo Lollato

Agronomy
Kansas State University

Dan O'Brien

Agricultural Economics
Kansas State University

Tom Phillips

Entomology
Kansas State University

Harold Trick

Plant Pathology
Kansas State University





Course Supporters

Thank you for another great year.

ABA-FOR
Abalıoğlu Yağ San. Ve Tic. A.Ş.
Abdullah Flour Mills (Pvt)Ltd.
Ace Feeds
ADM Animal Nutrition
AFB International
Agente de Buhler Inc Nicaragua
Agfinity Inc.
Agrifood, S A S
Agripac
Agrosur
Agrow Green Planet Co., Ltd
AHB US LLC
Al Imran Flour & General Mills
Pvt Ltd.
Albateg S.A.
ALEN+PRO SAS
ALFIL MILLERS(U) LTD
ALIMENTOS CONCENTRADOS
RAZA
Alimentos Pecuarios ALIPEC
Alimentsa - BioMar
Alltech, Inc.
Alphia
Andersons Ethanol Group
Andersons Inc.
ANDRITZ Feed and Biofuel
Animal Feed Solutions, C.A.
Animal Nutrition Association of
Canada (ANAC)
Ant Feed Co. Ltd.
APC
Apsara Agri
AquaCargill del Ecuador CIA
LTDA

AQUAFEED S.A. DE C.V.
Ardent Mills
Asia Poultry Feeds (Pvt) Ltd.
Association of Feed Millers of
Ghana
ATI-ITCPH
Aung Thet Htun Poultry mill
and trading company
AURI
Aviagen
Avicola La Barranca S.A.
Avicola Quiñones
Avimol SAS
Avipaz
Ayamas Integrated Poultry
Industry Sdn Bhd
BALANCEADOS LAMAR C A
BALANCEADOS NOVA BALNOVA
Balchem
Balikesir Yem Co.
Bangkok Ranch Public Co., Ltd.
Barrett Petfood Innovations
Bay State Milling Company
Bayer
Bell Flavors and Fragrances
Belstra Milling Co.
BH Comercializadora
Bimbo Bakeries
Biomar
Birkett Mills
Blue Buffalo Co.
Boris B Group of Companies
Brand Aromatics/McCormick
& Co
Bratney Companies

BRF BANVIT
Brookside Flavors and
Ingredients
BSM Partners - Nutrition
Practice
BUCHI Corporation
Buhler, Inc.
Cairnspring Mills
Çamli BesicilikSan Tic. A.S.
Cargill Animal Nutrition
Cargill Feed & Nutrition
Cargill Japan LLC.
Cargill, Inc.
Central Garden Pet
Central Milling
Central Prairie Coop
Central Valley Ag
Cereales en General S.A.S.
Cereals Canada
CFC Farm & Home Center
Champion Petfoods
Chemagro Ltd.
Cheong Bee Group
CIPA S.A
Clinical Nutrition
CMI-Molinos Modernos
Co-Alliance Cooperative Inc.
Cobb Vantress, LLC
COMAYMA
Confiance co
CONTEGRAL SAS
Cooperativa Agrária
Cornerstone Ag, LLC
Country Partners Cooperative
Crown Flour Mills

Crum & Forster
CSA Animal Nutrition
CTS Liquid Feed, LLC
Cycle Farms
Dabaco Group
DAEWON GSI CO., LTD
Dakota Mill & Grain, Inc.
Darling Ingredients Inc.
De Heus
Deseret Mill and Pasta
Dindings Soya & Multifeeds
SDN BERHAD
DK Ampofo Farms
DON POLLO S.A.S.
Dos Anclas SA
East Kansas Agri-Energy
EASY Holdings Co., Ltd
EDL Agritourism Farm Inc.
Electro-Sensors, Inc.
Ellsworth Coop
Engrain LLC
Equalivet Inc.
ERS/MTED
Evonik Industries
Expert Pet Nutrition
Fabrica de Harinas de
Centroamerica S.A.
Farmers Cooperative
Farmers Mill
Farmers Rice Cooperative
FDA
FEED ONE CO., LTD.
FermentationExperts USA, LLC
Flour Mills of Nigeria PLC
Form A Feed

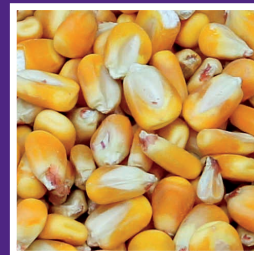
Gandhi University
Gavilon Fertilizer, LLC
General Mills
George's Inc.
Gold Coin and Pilmico Group
Grain Craft
Grange Cooperative Supply
Association
Great Western Manufacturing
Green Plains Atkinson LLC
Green Plains Inc.
Green Plains Madison LLC
Greenfeed
Grupo Alvamex
Grupo Pecuario Arce
Gures Group
Hansen-Mueller
HARISA SA DE CV
Hi Plains Feed, LLC
Hiep Thanh Technology
Development Investment
and Trade Company
High Plains Nutrition LLC dba
Sativa Feed Ingredients
HOPE Pet Food
Hudson Valley Farm Hub
Hybrid Feeds
ICL Group
Idaho Wheat Commission
Idaho Wheat Commission
IFFCO
Individual
Industrial Belina Montes de Oro
Insta Pro International
Instinct Pet Food

Integrated Proteins, LLC
International Nutrition, Inc.
Inversiones AvA-colas C.A.
Iowa State University
IRESA/INAT
Irri al tal LLC
IsoNova Technologies
ITALCOL SA
Italgrani USA
ITOCHU FEED MILLS CO., LTD.
J-OIL MILLS, INC.
Japan Feed Manufacturers
Association
Japan Oilseed Processors
Association
Japfa ComFeed India PVT LTD
JBS Live Pork
JC Howard Grain
Jones Seed Company
Kami Farming Sdn Bhd
Kanematsu agritech Co., Ltd.
Kansas Association of Wheat
Growers
Kansas Department of
Agriculture
Kansas Ethanol, LLC
Kansas State University
Kansas Wheat Commission
KAWG
Kemin Europa N.V
Kemin Industries Inc.
Kent Nutrition Group, Inc.
Kerry
King Milling Company
King's Hawaiian

Kinh Bac Feedmill	Midwest Renewable Energy	Nutricion Animal, S.A	PT. CPI Balaraja	Stafford County Flour Mills	USSEC SEA
Knappen Milling Company	Miller Milling Company	Nutrimentos Concentra, SA	PT. CPI KIM Medan	Star of the West Milling Co.	Venvi Agro
KNUST	Mindi.McKibbin@purefield.com	de CV	PT. CPI Krian	Stella & Chewy's	Viafield
Korea Overseas Agro-resources	Ministry of Agriculture	Nutrinza	PT. Crown Flour Mills	SuPollo	Videka Solutions
development Associa	Mississippi State University	Nutritional Technologies S.A.C.	PT. Japfa Comfeed	SureTech Labs	VIMIFOS S.A DE C.V.
Korea Overseas Agro-Resources	Missouri Dept. of Agriculture	Office of Cereal Operators	PT. Malindo Feed Mill	Taiyo Bussan Kaisha., LTD.	Vision 2000 Feedmills
Development Association	Mitsubishi Corporation	(ONICL)	PT. Sido Agung Agro Prima	Thai Union Feed Mill Co., Ltd.	Corporation
Kreamer Feed, Inc.	MITSUMI & CO., LTD.	Office of Cereals	PT. Sido Agung Farm	Tosh Pork, LLC	Vita Plus Corporation
KSU	MKC	Ohio State University	PTUSA	TransAgra International, Inc.	Vitapro Honduras S.A de C.F
Laemthong Corporation Ltd.	Mo Department of Agriculture	Oil Divine Limited	Purina Animal Nutrition	Tsima brands (Pty) Ltd	VOA Farms and GNAPF
Laila Food Products Limited	Moe Ah San Trading Co.,Ltd	Oklahoma Wheat Commission	Pussalla	Tyson	Wallenstein Feed & Supply Ltd.
Land O'Lakes, Inc./Purina	Molina del Altatics	Olympic Oils PVT LTD	QA Supervisor	U.S. Soybean Export Council	Walmart/Sam's Club
Animal Nutrition	Moline Enterprises	Ombudoy Agro Allied	Rabah chellat for	U.S. Wheat Associates	Washington Grain Commission
Lathrop-FSG	Molinera del Valle	Oregon Wheat Commission	manufacturing animal	UC Davis	Wayne Farms LLC
Lauridsen Group	Molino Venecia	Oxbow Animal Health	Royal Canin	United Farmers Cooperative	Wellness Pet Co.
Lawley's Inc	Molinos del Atlantico	P&H Milling	Royal Chicken, Inc.	University of Guelph	Wenger Feeds
Lazarus Naturals	Motif FoodWorks Inc.	PANOCEAN (AMERICA), INC	Ruchi Soya Industries LTD	University of Lagos	Western Milling
Lee Feed Mill Public Co., Ltd.	MPS Egg Farms	PCK Agri Ventures Pvt Ltd	Sam's Club	US Wheat Associates	Westway Feed Products LLC
Lexden Marine	MT Wheat & Barley	Peak Performance Nutrients,	Saturn Petcare Inc.	USDA/FAS Tunis	WIPVAC
LGI	Naltech SAC	Inc	SC Foods Co., Ltd.	USSEC	WISHH
Livestock Nutrition Center, LLC	National Wheat Foundation	Perry Brothers Seed, Inc.	Scherer Inc.	USSEC Myanmar	Xtra Factors
Lotte International Co. Ltd	Nature's Fynd	Pet Food Processing magazine	Seaboard	USSEC SE Asia	Yedent
M'S PIG	Nature's Path Foods	PetHonesty LLC	Showa Sangyo Co., Ltd.		
MARS Horsecare US	Nestle Nutrition	Petsource by Scoular	Shree Chandel Food Product		
Matli Holding	New Generation Supplements	Phoenix Feeds and Nutrition	Pvt		
Mavin Austfeed Joint Stock	Nisshin Flour Milling Inc.	Pilgrim's	Siemer Milling Company		
Company	Nisshin Oillio Group, Ltd.	Pioneer Flour Mills	Simplot Western Stockmen's		
MCP FEED BASICS CO.	NISSHIN SHOKAI CO., LTD.	Pittmans	Singsong Industrial Co.,Ltd		
Mehta Brothers Pvt. Ltd.	NMA Sanders	POET, LLC.	Smithfield		
Mennel Milling Company	North Dakota Mill and Elevator	Porcherie Lac Du Onze	Smithfield Hog Production		
MFA Incorporated	North Dakota Wheat	Posco International Corporation	Snavey's Mill, Inc		
Michigan Agricultural	Commission	Pretzels Inc.	Sohar Flour Mills LLC		
Commodities	Northern Crops Institute	PRONUA	SOLLA S.A.		
Micro-Lite, LLC	NU3	PT. CENTRAL PROTEINA PRIMA	Soon Soon Oilmills sdn bhd		
Midwest Fertilizer	NutraSun Foods	PT. Cibadak Indah Sari Farm	Spring Hope LLC		

Kansas State University Notice of Nondiscrimination

Kansas State University is committed to nondiscrimination on the basis of race, color, ethnic or national origin, sex, sexual orientation, gender identity, religion, age, ancestry, disability, genetic information, military status, veteran status, or other non-merit reasons, in admissions, educational programs or activities and employment, including employment of disabled veterans and veterans of the Vietnam Era, as required by applicable laws and regulations. Responsibility for coordination of compliance efforts and receipt of inquiries concerning Title VI of the Civil Rights Act of 1964, Title IX of the Education Amendments of 1972, Section 504 of the Rehabilitation Act of 1973, the Age Discrimination Act of 1975, and the Americans With Disabilities Act Amendments Act of 2008, has been delegated to the Director of Institutional Equity, Kansas State University, 103 Edwards Hall, Manhattan, KS 66506-4801, (Phone) 785-532-6220; (TTY) 785-532-4807. Revised August 14, 2014.



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