





North American Export Grain Association

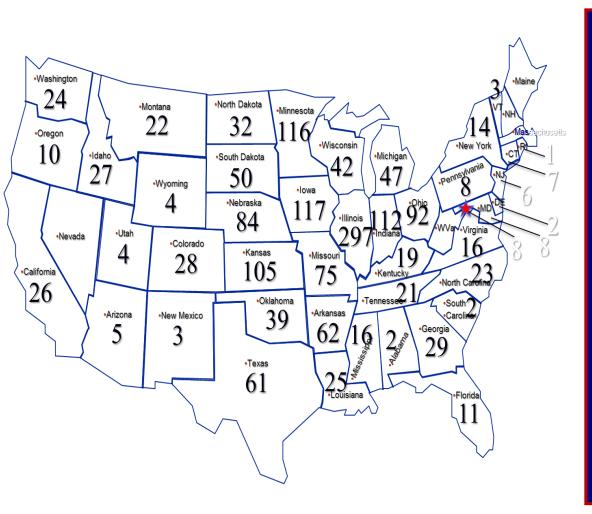
NAEGA: global reach, promoting free and open global trade. Our focus - predictable, reliable and expanded trade. Improve conditions for all stakeholders via:

- Representing Members and the Trade
- > Outstanding Member Engagement
- Strong Partnerships around the globe.
- Meeting needs of Importers and their Governments
- > Best practices for Trade
- Advocacy for Sound, Responsible
 Commercial and Official
 Stewardship and Risk Management
- **▶** Reduce/Eliminate Trade Barriers
- > Influence Trade and Ag. Policy





National Grain and Feed Association

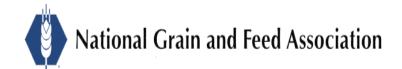


1,000 + NGFA Member Companies:

- Grain elevators
- Feed, feed ingredient manufacturers
- Oilseed processors
- Flour, corn mills
- Biofuels producers
- Many other related agribusinesses
- 26 State/Regional Associations
- Partnerships with NAEGA, PFI

Mission:

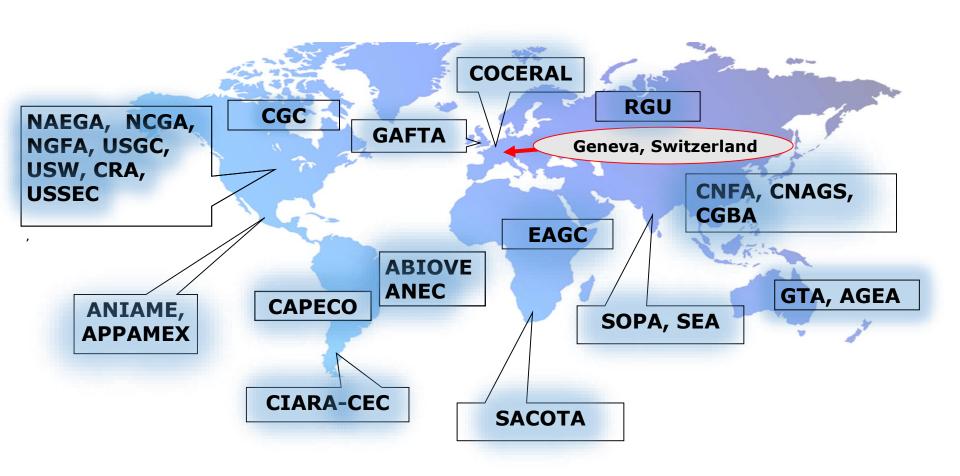
- Secure abundant, safe food and feed supply
- Promote free markets







26 associations, 8000 businesses 85 countries



Requirements / Regulations play critical role

International (NAEGA)

Plant Health (IPPC)

Maritime Law (IMO)

Insurance and Finance Terms

Food Safety (Codex)

Biosafety / Crop Biotechnology (BSP)

Sustainability Mandates

Security (ISPS)

Digital Documentation and Verification

Trade Barriers and Sanctions (WTO)

Contract Guidance and Dispute

Resolution

U.S. (NGFA)

Commercial Practices and Code

Trade Rules – Rail and Grain Trade

Occupational Health and Safety

Environmental Protection

Homeland Security

GMO regulation/ commercialization

Food, Feed Safety (US FDA)

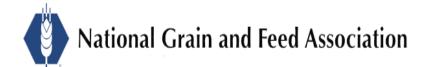
Product Quality

Industry Education and Training

Economic and Tax Policy

Contract Guidance and Dispute Resolution

Compliance, Co-ordination and Support for Actions of Governments





Global Grain and Oilseed Marketing

Pressure has never been greater on agriculture to provide for global food security, food defense and energy security while maintaining high quality, safe products throughout the value chain.

The role of international trade in agri-bulks is expanding and increasingly complex and in need of <u>sound</u>, <u>responsible</u>, <u>predictable</u> commercial and official measures"

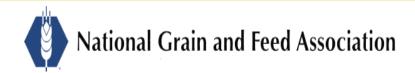




Global Grains and Oilseeds Trade and Markets 全球谷物和油料作物贸易和市场

From a long-term perspective: 从长远角度看报:

- > Continued growth in global demand for grains and oilseeds will evolve
 - Population growth and urbanization will drive demand
 - Permanent renewable energy requirements will create demand
- ▶ 全球对谷物和油料作物需求的连续增加将演变
 - 人口增加和城市化将迫使需求(增加)
 - 对长期再生能源的要求将产生新需求
- With historically low ending stocks:
- ▶从历史上看,期末存货量低
 - World grain complex is vulnerable to a production shortfall in case of weather events.
 - 面对可能的由自然灾害造成的减产,国际谷物综合系统是脆弱的。
 - Geopolitical events are the random factors, but in the case of food security, export restrictions are being implemented.
 - 地缘政治事件是随机因素,但为保证粮食(供给)安全,国家会执行出口限制
- ➤ "Planning for volatility is critical." (Rabobank, 2009)
- ▶"对应付波动有计划至关重要。"





World Bulk Grain Systems 世界大宗(散装)谷物系统

The grain industry's challenge = move commodities from areas of surplus to areas of deficit, provide for regulatory compliance, safety and cost efficiency

谷物界面临的挑战:在满足符合政策,安全和经济的条件下,将谷物从生产过剩地区运**到短缺地区**

✓ Movement is bulk and comingled.

运转过程是散装,**并不分离**。

✓ 3-24 months contract to delivery lead time

需3-24月合同以保证送货时间

✓ Characterized by high volumes, low cost 特征为大量和廉价

✓ Impossible to keep varieties totally separate in system

在系统中不可能保证品种间

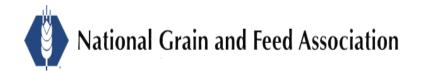
的完全分离

✓ Commingling may occur in each link of chain

混合在每个环节都可能发生

✓ Adventitious materials may occur in all shipments of all commodities.
无意混杂

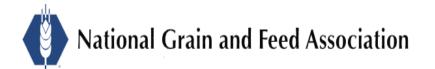
在每种作物的每期货中多可能发生





Global Supply Chains cannot manage to Zero Tolerance 国际供应链中不可能达到零容忍度

- Adventitious Presence of some Quarantine Pests, as well as Food Safety and Labeling concerns will occur in all trans-boundary shipments of all commodities.
- **少**量被检疫的病虫害和食品安全上有顾虑或要求标识的东西的无意混杂 **可能在所有作物的跨国界和地区界的每个期**货中存在
 - Neither Identity-preservation (IdP) nor Grain Channeling / segregation can manage these events to zero tolerance
 - 特性保留系统或谷物分离系统均不能做到零容忍度
 - Testing is NOT a solution
 - 测试不能解决问题
 - "Limit of detection" thresholds do little to improve destination risks
 - "鉴定极限"域值对终端风险有很小改进





Practical and Achievable standards 符合实际的和可以做到的标准

- Existing marketing thresholds provide guidance for as they establish minimum standards, that enable markets to trade products with claims of identity and attributes (No.2 yellow, Organic, Waxy)
- 现存市场域值提供指南,这些域值建立底线,允许市场对所交易的产品有明确定义和特性(2号黄,有机,糯)
- Marketing thresholds allow grain customers to *maximize the value* of the grain product and *minimize cost inefficiencies and handling costs* associated with the supply chain
- 市场域值允许谷物购买者实现最大产品价值,减小花费和供应链中管理的费用
- Industry players can establish lower thresholds contractually, where there are market demands for such products
- 在一定产品的需求市场,有关公司可建立较低的合同域值





When testing is necessary 需要测试的情形

- Sampling consistency and confidence is critical. 样本的一致性和对样本的信心是关键。
- Global supply chains need verifiable, predictable and consistent testing and analyses standards that are fit for the specific purpose. **全球供**应链需要可验证,**有** 预测价值的和稳定的测试方法,**及适**应特点目的的分析标准
- Testing needs to be effective and consistent along the supply chain to satisfy IdP and/or traceability requirements. 测试应是有效的,在供应链中满足保留特性和/或可跟踪性要求
- Testing –official as well as commercial for all concerns needs standards and standardization **官方或商**业所有测试需要标准和标准化
- Test method developers need to validate methods and demonstrate they are fit for purpose as the product moves through the food chain. 测试方法建立人员需保证方 **法的有效性**,并证实当产品流通在食品链中,该方法适合所测试的目的。
- Final food testing is very complex and subject to inherent variability and imprecision. Raw Material thresholds should reflect this fact. 对最终食品的测试很负责,被测物已承袭变异和不精确性。原始材料域值应反应此事实





Sound Commercial Practice 良好商业实践

- Contract sanctity of paramount importance.
- 合同的神圣性至高无上
- Promotes trade between countries economic growth and food security.
- 促进国家间的贸易-经济增长和粮食安全。
- Promotes the most efficient cost structure for conducting business sustainability
- 倡导最有效率的进行商务活动的成本结构-可持续性
- Impacts investment decisions development and food security.
- 影响投资决定-发展与粮食安全
- Promotes market participation and increases competition Best for all stakeholders
- 推动市场参与并增加竞争-对所有利益攸关方最有益的







Typical US Export Volumes

82 MT to 700 MT bins Limited segregation 82-700吨贮藏箱 有限的分离

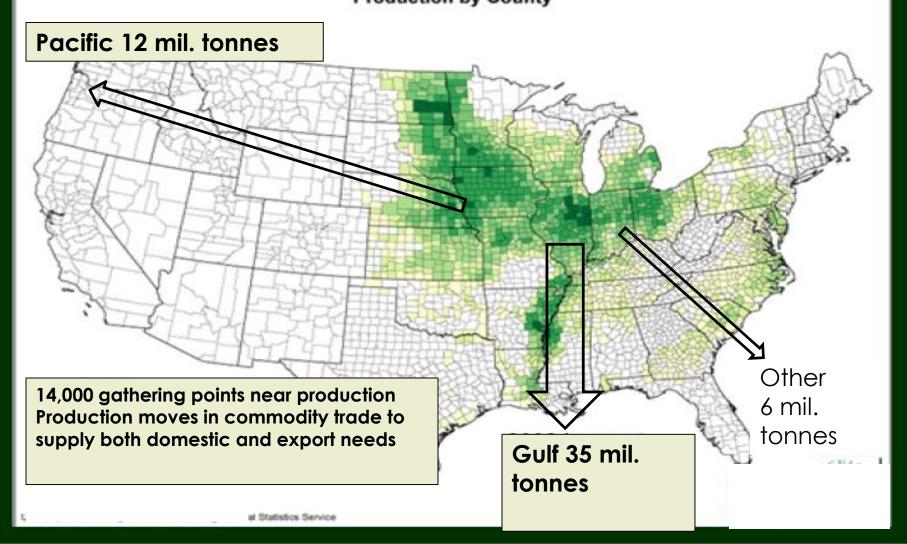
接收 铁路 Rail - 750-1,200 MT/hr 驳船 Barge - 750-2,500 MT Shipping 运输 船 Vessel - 1,500 - 3,200 MT/hr Storage Capacity 储藏容量 Just in Time loading 仅够装载时间

-般美国出口量 Receiving 接收 500吨/小时 20 trucks/hr = 500 MT/hr Shipping 运输 250吨/小时 10 trucks/hr = 250 MT/hr 4 to 8 cars/hr = 440 to 880 MT/hr 440-880吨/小时 储存容量 Storage Capacities Corrugated Steel - 550 to 13,500 MT 钢 -500-13 500吨 Concrete - 680 to 2,700 MT 水泥-2 700吨 Flat Storage - 1,000 to 164,000 MT 平方仓-1000-164 000吨

Receiving 接收
20 to 40 trucks/hr - 500 to 1,000 MT/hr
Shipping Barges - 500 to 1,000 MT/hr
Storage Capacities 存储容量
Concrete 水泥- 1,400 to 2,700 MT
Welded Steel 钢 - 13,400 to 27,300 MT
Flat Storage 平方仓- 41,000 to 164,000
MT

1 Panamax (50 K tons) = 38 barges = 2200 semi trailers = 2M bushels = 330 trillion soybeans 526, 000 US Soy Farmers, 30+ million Hectares, 34 states produce c. 90+ mil. tonnes

Soybeans 2007
Production by County



Food Safety Modernization Act of 2011

- Signed into law on Jan. 4, 2011
- Greatly expands FDA's authority to regulate the U.S. food supply
 - Mandates that FDA create a <u>new prevention-based regulatory system</u> to ensure the safety of food/feed/grain products
 - Requires FDA to develop and issue more than
 50 regulations and/or guidance documents



FSMA – Some Key Provisions

- Facility Registration is required with FDA every two years during last calendar quarter of even numbered years
- FDA granted <u>expanded</u> authority to administratively detain food/feed/grain products
- FDA granted authority to issue mandatory recall notices to facilities
- FDA granted <u>expanded</u> authority to access food, feed and grain-related records





Inspections - Inspections - Inspections

- FSMA mandated inspection of <u>all</u> FDAregistered food/grain/feed facilities
 - —Initial inspections within 5 years (high-risk), 7 years (low-risk)
 - –Subsequent inspections every 3 years (high-risk) to 5 years (low-risk)



| Subject of Rule | Date Final Rule Issued |
|--|------------------------|
| Current Good Manufacturing Practice (CGMPs) and Preventive Controls – Human Food and | Sept. 17, 2015 |

Nov. 27, 2015

April 6, 2016

Animal Feed

Foreign Supplier

Verification Programs

Sanitary Transportation

of Food/Feed

Impact of FSMA Rulemakings

Human Food and Animal Food CGMPs and Preventive Controls

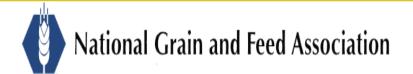
 Facilities "solely engaged" in storing grain and oilseeds are exempt

Foreign Supplier Verification Programs

Applies to *importers* of grains and oils - *could include* a grain elevator

Sanitary Transportation of Food

Applies apply to grain elevators, feed mills, grain processors





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Thank You









Annex for Sampling



USE to Explain Sampling





