

SITUASI TERKINI BAHAN PAKAN TERNAK DUNIA

(RECENT UPDATE ON GLOBAL FEED INGREDIENTS)

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DARE to COMPARE







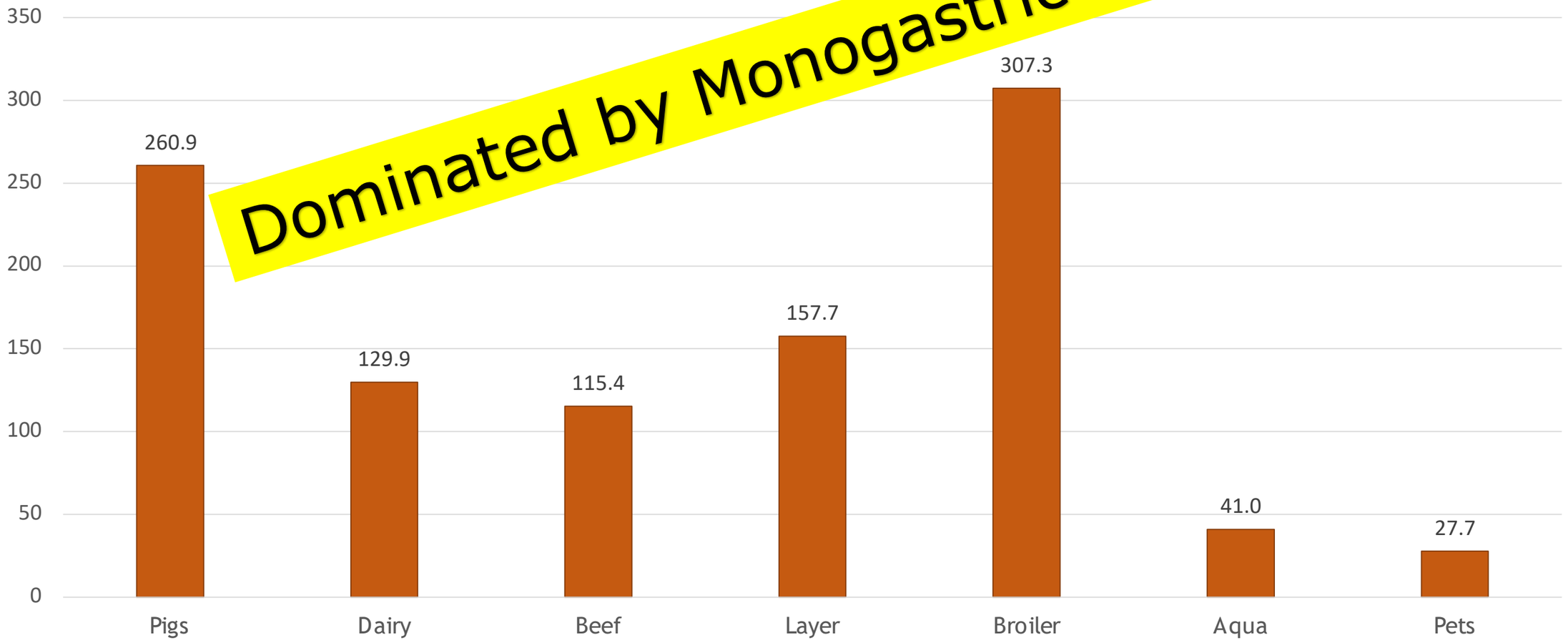
AGENDA

- Production and Price of Ingredients
- Challenges in Production, Supply and Demand
- Future Outlook
- Impact to Poultry Industries Indonesia
- Recommendation

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FEED PRODUCTION BY SPECIES

TOTAL 1.13 BILLION TON (2019)



Numbers are in million metric tons

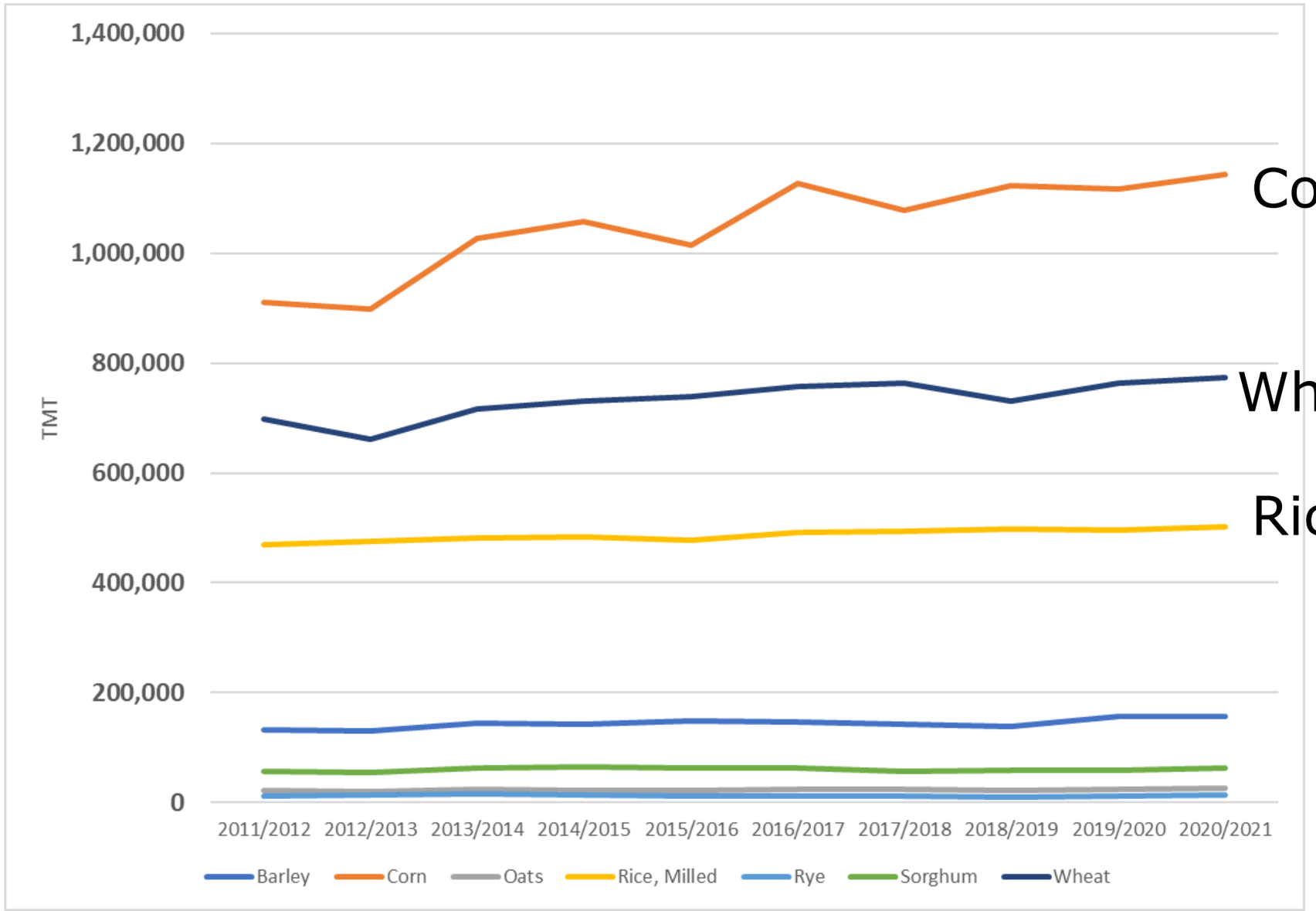
Alltech, 2020

INGREDIENTS FOR MONOGASTRIC

- **Cereals and grains:** corn, barley, sorghum, wheat, rice
- **Tuber:** Cassava, potato
- **Milling by products:** rice bran, wheat pollard/bran, CGM, CGF, DDGS, guar
- **Oilseed/meal:** Soybean, rapeseed/canola, palm kernel, copra, cotton, sesame, peanut
- **Animal protein meal:** fish, MBM, PMM, FM, Blood, Fish soluble,
- **Oil:** fish oil, palm oil, soybean oil, coconut oil
- **Minerals:** salt, limestone, DCP/MCP, bone,
- **Amino acids:** L lysine HCl, Methionine, Threonine, Tryptophan, Valine, Isoleucine
- **Premix:** Vitamin, Trace element, additives (probiotic, prebiotic, herbals, AGP, immune enhancer), drugs

WORLD GRAINS PRODUCTION,

2011/2012 – 2020/2021



Corn

Wheat

Rice

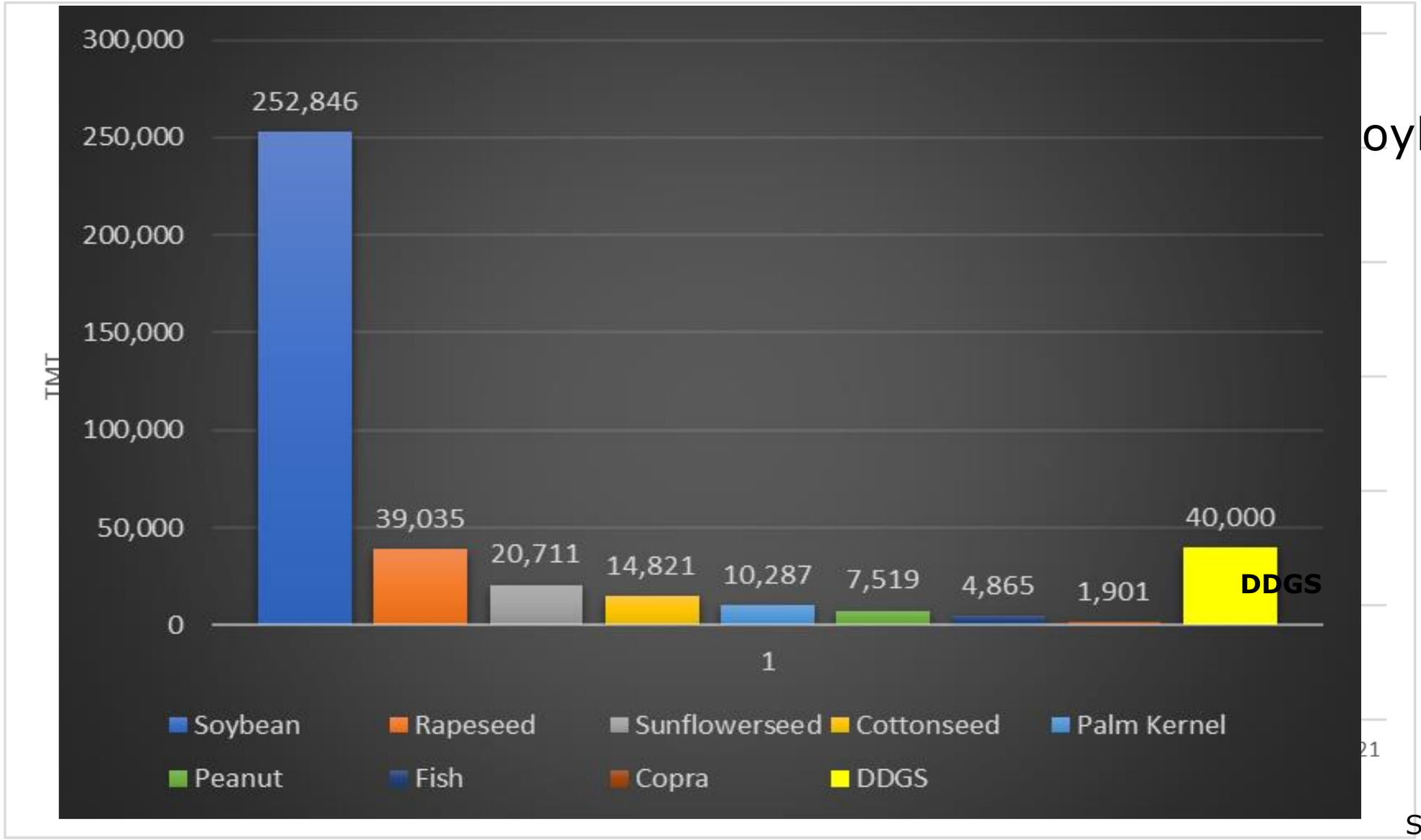
Human Cons.

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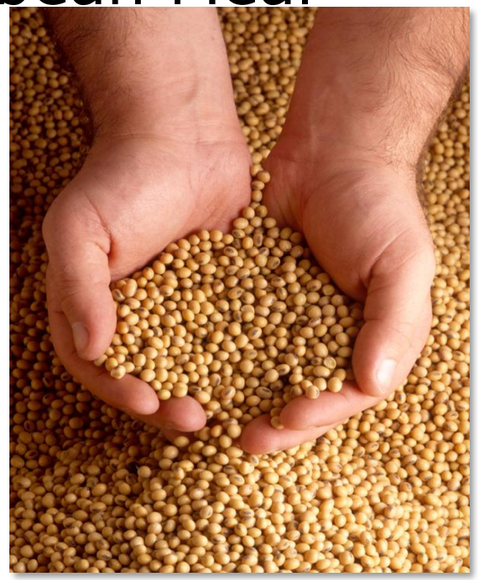
Source: PSD Online, 2021

WORLD PROTEIN MEAL PRODUCTION,

2011/2012 – 2020/2021



oybean Meal



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Source: PSD Online, 2021

US ANIMAL PROTEIN PRODUCTION

Table 2. US production, imports, consumption, and exports of rendered products, 2013-2018 (000

Category	2013	2014	2015	2016	2017	2018
Production						
Tallow	2,589.3	2,441.4	2,385.7	2,559.5	2,594.9	2,675.5
Inedible tallow	1,631.2	1,538.0	1,502.9	1,587.4	1,663.8	1,662.4
Technical tallow	543.9	512.8	501.1	562.5	521.5	566.5
Edible tallow	414.3	390.6	381.7	409.6	409.6	446.5
Poultry fat	1,040.2	1,056.5	1,088.8	1,113.3	1,095.3	1,054.0
Yellow grease/used cooking oil	896.4	933.2	926.4	916.4	913.0	990.7
White grease	718.0	707.3	758.7	787.6	750.5	736.8
Choice white grease	567.6	559.2	599.8	620.3	592.3	587.4
Lard	150.4	148.1	158.9	167.3	158.2	149.4
Other greases	346.7	333.9	341.7	336.0	369.2	285.3
Subtotal	5,712.8	5,472.3	5,501.3	5,712.8	5,722.9	5,742.3
Meat & bone meal	2,629.9	2,532.4	2,591.8	2,711.5	2,790.2	2,657.4
Poultry by-product meal	1,365.6	1,387.1	1,429.4	1,382.1	1,438.8	1,368.1
Feather meal	512.7	520.7	536.6	527.2	522.0	464.3
Subtotal	4,508.2	4,440.2	4,557.9	4,620.8	4,751.0	4,489.8
Total production	**10,221.0**	**9,912.4**	**10,059.2**	**10,333.6**	**10,473.9**	**10,232.1**

NARA, 2019

TWO MAJOR INGREDIENTS: CORN AND SBM





Price Update!!

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RECENT PRICE CHANGE FOR CORN AND SOYBEAN

(CBOT, AUGUST 2020 TO JANUARY 2021)

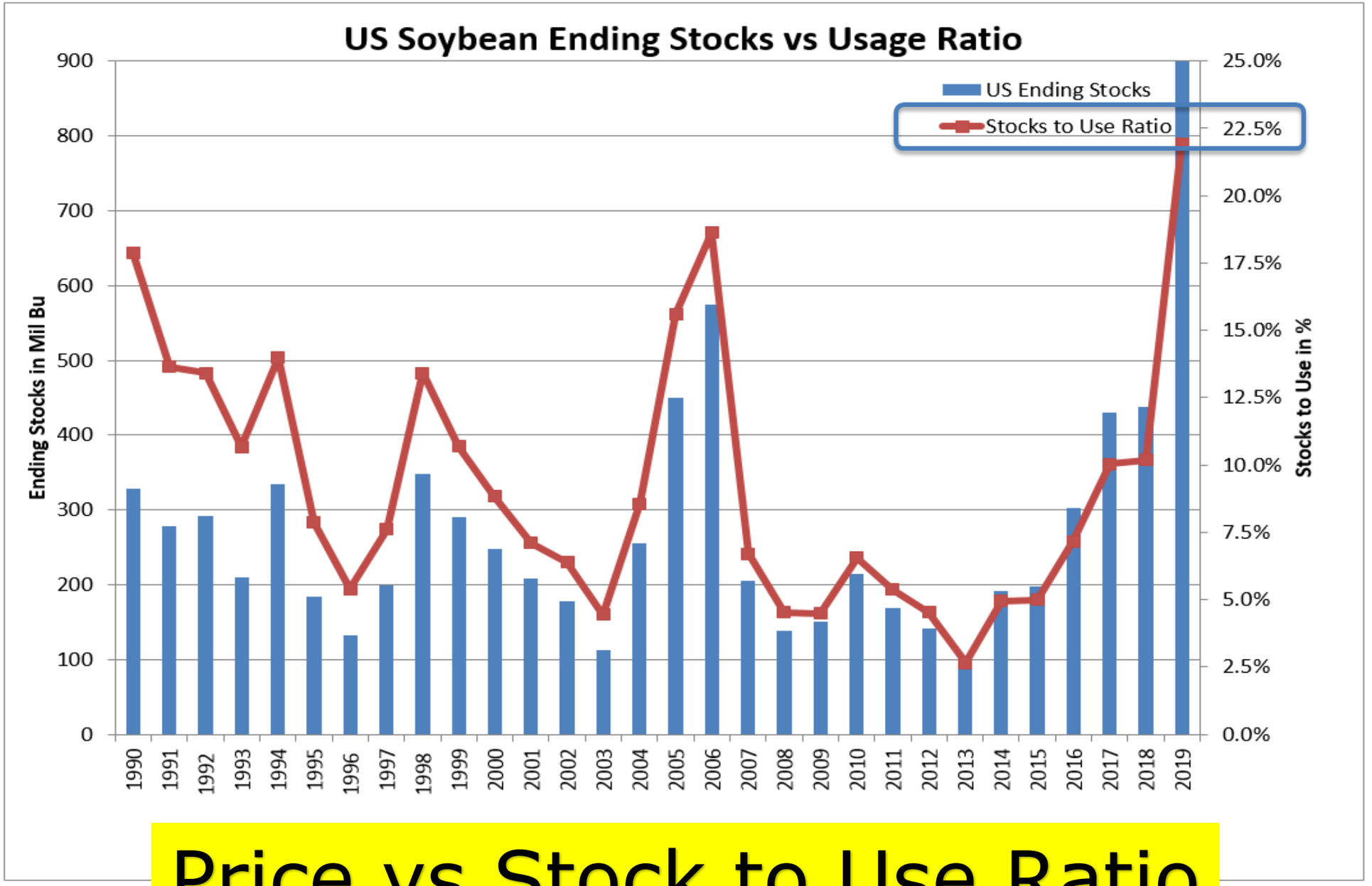
Corn Price



Soybean Price



Until when?



Price vs Stock to Use Ratio

O'Neil, 2019

REASON FOR PRICE HIKE IN THE LAST FEW WEEKS

- Strong demand for Soybean resulted in a lower stock to use ratio
- China rebound on SBM demand, after ASF and commitment in first stage contract under Trump admin. China soybean import from 68MMT to 98.5 in 2020 for stocking
- Issue on drought in Argentina during this planting season, may decrease production. Similar issue for Brazil
- Similar situation for global Corn demand
- High cost for containers due to strong demand

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AFFECT TO OTHER FEED INGREDIENTS

- SBM is a bench-mark for ingredients cost
- All protein meal will increase price. Price Ratio SBM to Corn is 2.6. Other protein source MBM, PMM, CGM
- High corn price drive high ethanol and affect Soybean oil for biodiesel, CPO will be affected
- DDGS price relates to corn price

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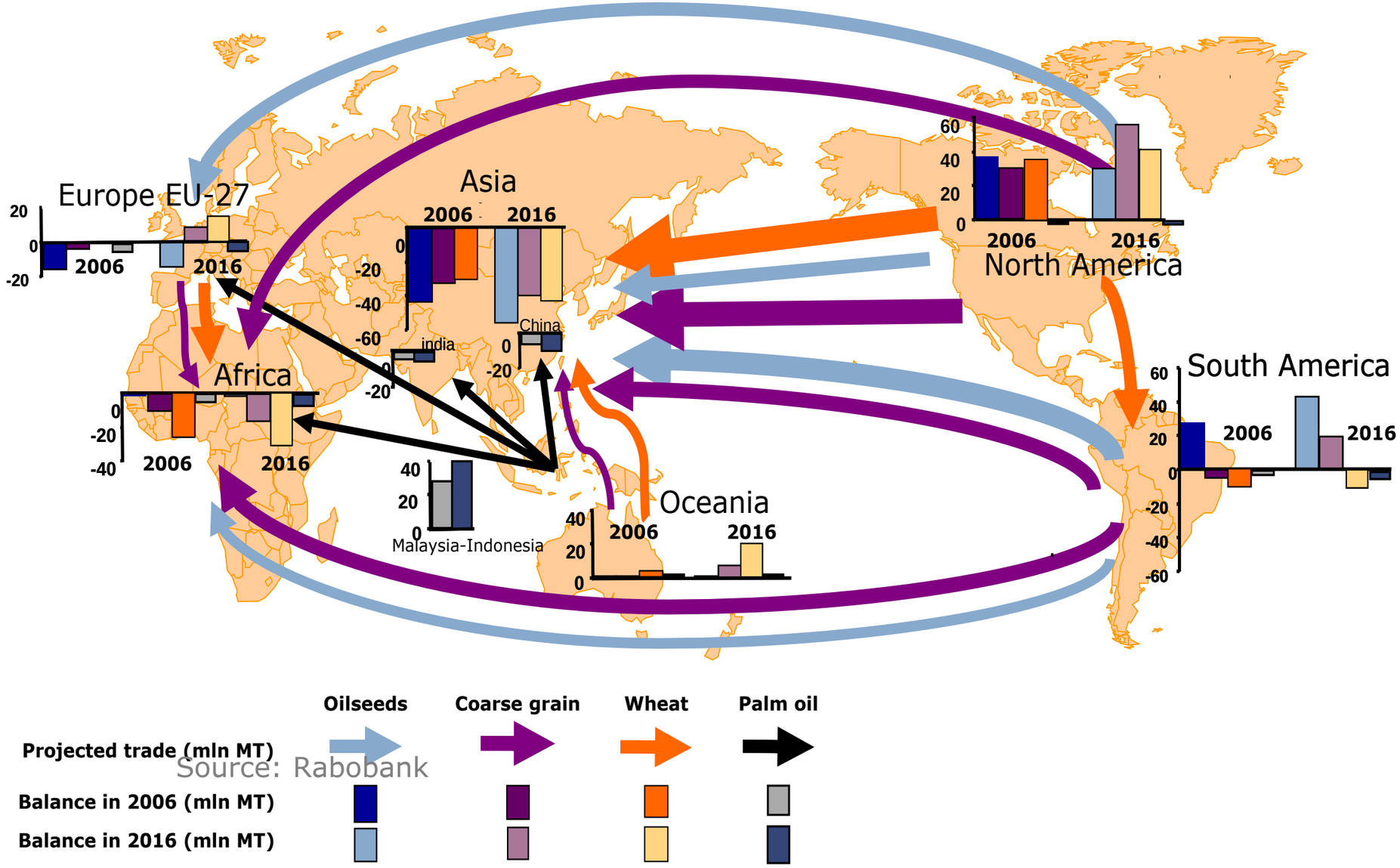
CHALLENGES IN FEED PRODUCTION AND AVAILABILITY OF FEED INGREDIENTS



Ketersedian bahan baku

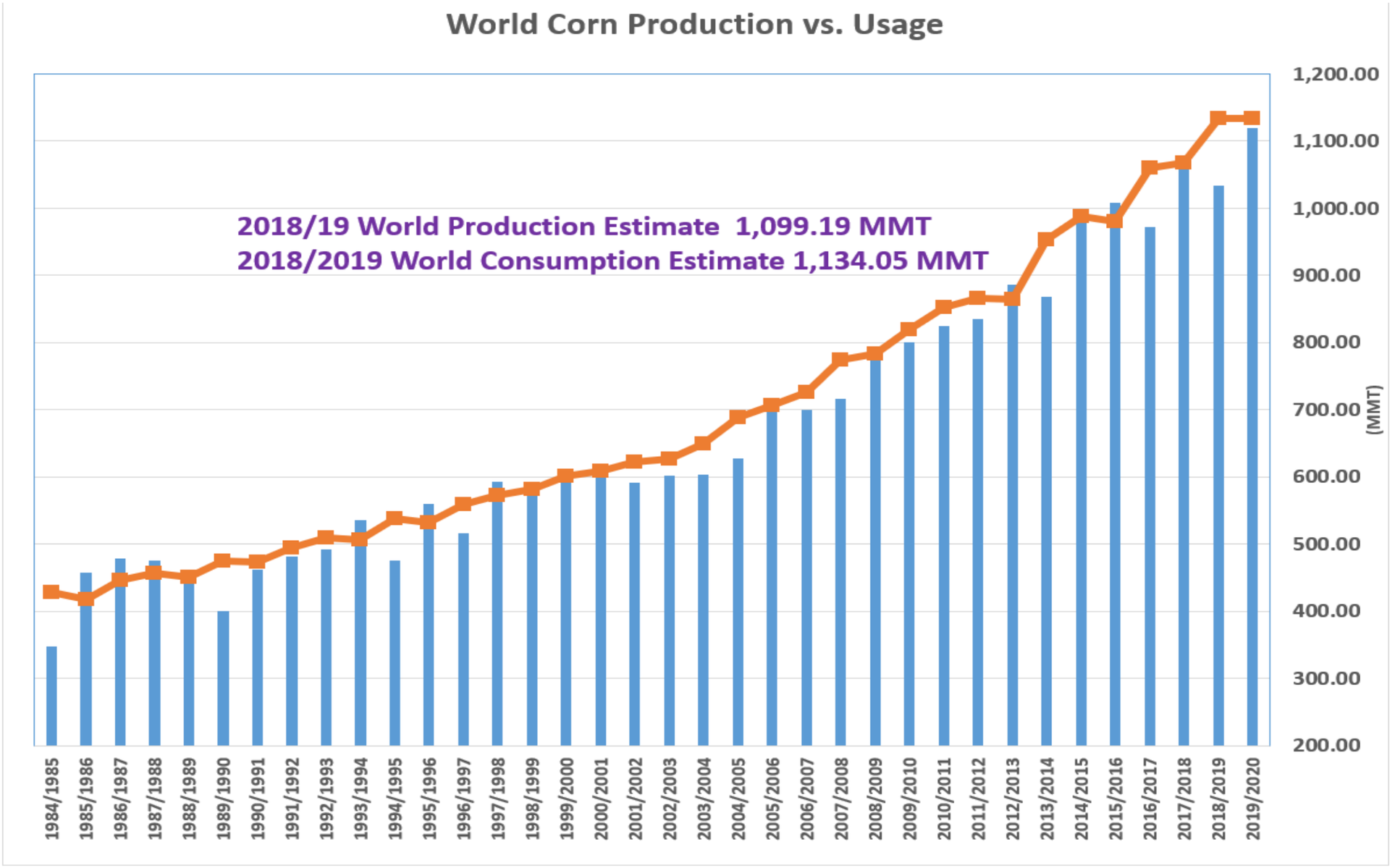
Tidak berimbang di tiap negara

ASIA REMAINS NET GRAIN AND PROTEIN MEAL IMPORTER

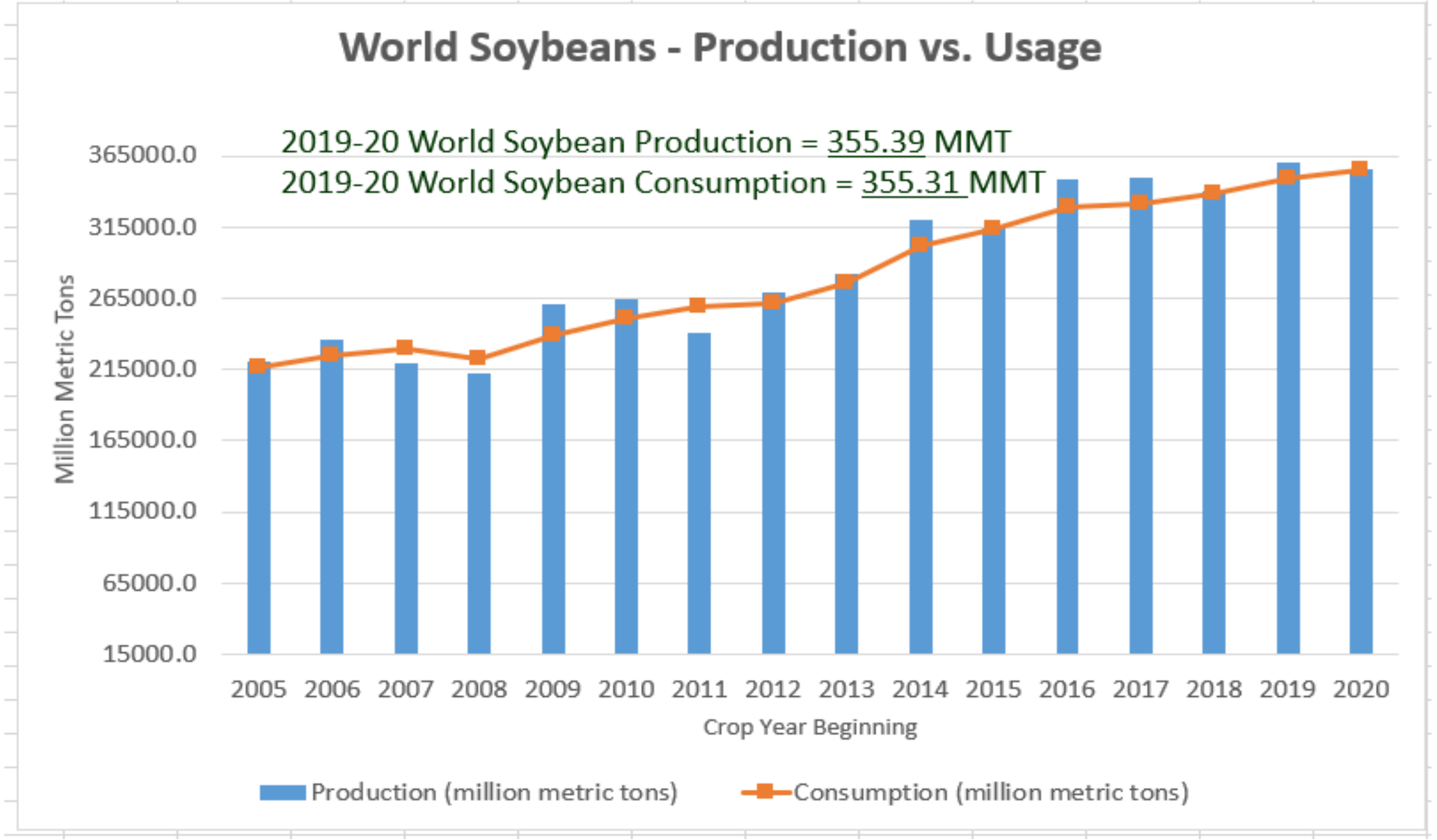


Source: Rabobank

Pioneer, 2017


World Corn Production vs. Usage
2018/19 World Production Estimate 1,099.19 MMT
2018/2019 World Consumption Estimate 1,134.05 MMT
1,200.00
1,100.00
1,000.00
900.00
800.00
700.00
600.00
500.00
400.00
300.00
200.00
(MMT)
1984/1985
1985/1986
1986/1987
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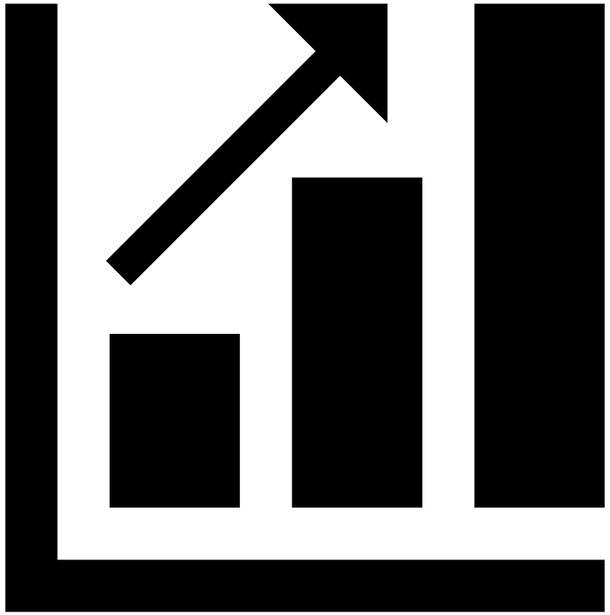
O'Neil, 2019


World Soybeans - Production vs. Usage
2019-20 World Soybean Production = 355.39 MMT
2019-20 World Soybean Consumption = 355.31 MMT
Million Metric Tons
365000.0
315000.0
265000.0
215000.0
165000.0
115000.0
65000.0
15000.0
2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020
Crop Year Beginning
Production (million metric tons)
Consumption (million metric tons)

O'Neil, 2019

EFFECT OF INGREDIENT PRICE TO INDONESIA

- Major cost of broiler and egg is feed, may reach 70% for broiler and >85% for layer
- Feed ingredients contribute 85-93% of ration cost
- Cost of broiler and layer production will increase. Global animal protein price index higher, inflation of feed is 27%.
- Price elasticity of broiler and egg is high negative → decrease demand
- But tempe price as substitute increase as well



During Covid19 pandemic, Egg is still best choice

FUTURE OUTLOOK FOR INDONESIA



Rely on Trade:
if follow global market

CHALLENGES IN USING LOCAL AND IMPORTED INGREDIENTS

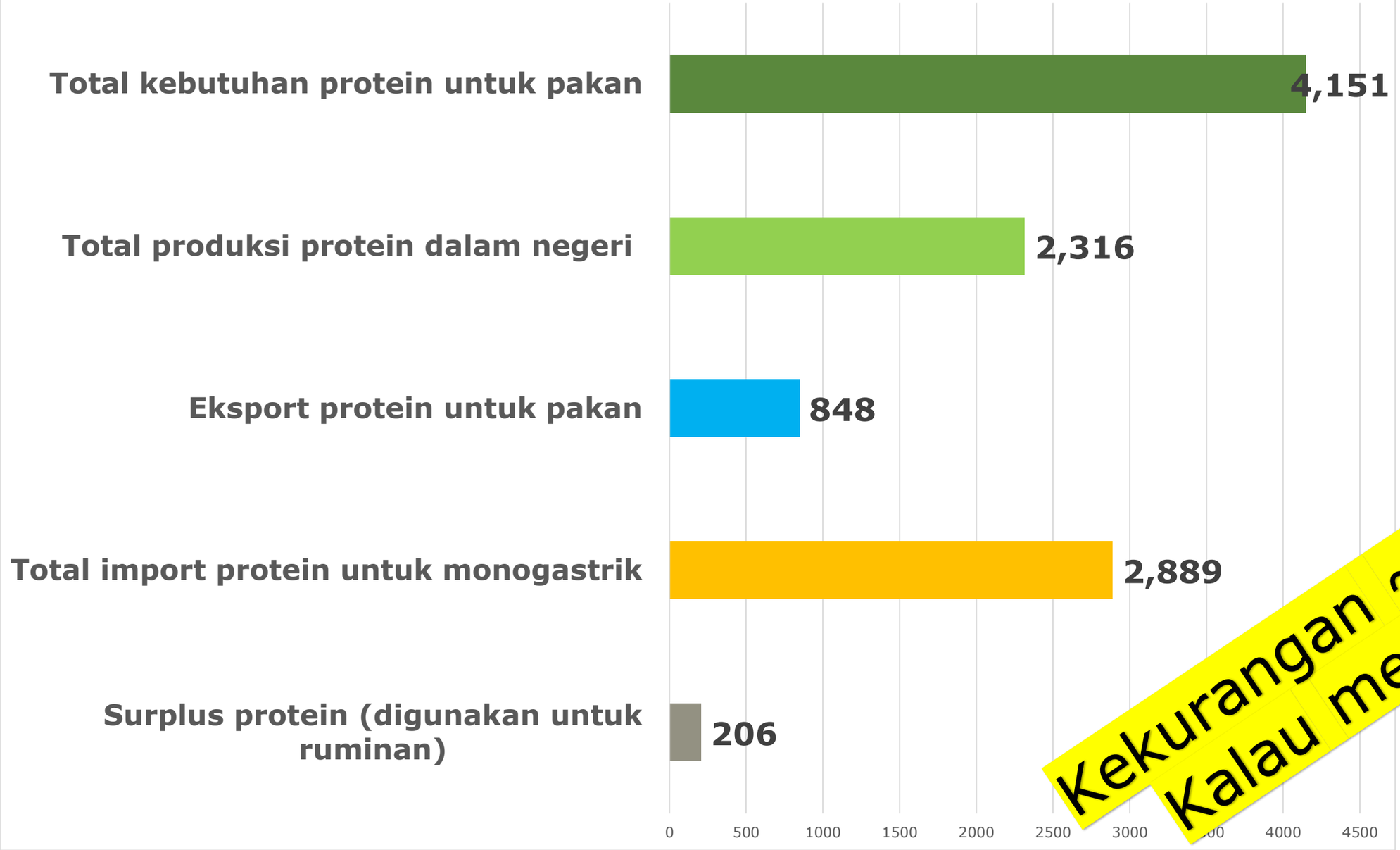
Locally available (Mainly Low Protein: CP content <20%)

- **Corn**
- **Rice Bran**
- **Palm Kernel Meal**
- **Wheat Bran/Pollard**
- **Copra meal**
- **Fish Meal (for aqua)**
- **CPO**

Imported Ingredients (Protein Source: CP Content >30%)

- **DDGS**
- **Soybean meal**
- **Sunflower Meal**
- **Animal Protein Meal**
- **Corn Gluten Meal**
- **Rapeseed/Canola Meal**

Feed Protein Balance Indonesia (x000 Ton)



Kekurangan ~3 juta T protein
Kalau menanam kedele?

CORN DEMAND ANALYSIS FOR FEED NEXT 20 YEARS

Berdasarkan analisa trend, pada tahun 2040 produksi pakan mencapai 44 juta ton.

Kebutuhan jagung tambahan sebesar ~12 juta ton.

Jika produktivitas jagung 1 ha 6(3.2) ton, maka butuh tambahan lahan 2(3.8) juta ha



Apakah tersedia?
Belum kalau untuk 3 juta T protein,
Setara 6 juta BKK saat ini

SHORT TERM SUGGESTION

Pemasok bahan baku dan pembelian

- Ikuti informasi dunia sehingga perubahan dapat di antisipasi
- Melakukan lindung nilai (hedging)
- Mencari sistim logistic yang paling efisien
- Pembelian secara berkelompok

Indutri Perunggasan/feedmill

- Meningkatkan efisiensi dalam mengejar Daya Saing
- Formulasi pakan untuk mencari alternatip bahan baku
- Dapatkan nilai tambah untuk menghasilkan produk siap makan. Maka kontribusi biaya bahan pakan makin kecil

FACTORS TO CONSIDER IN USING AN INGREDIENT

Price

- Supply
- Supplier
- Contract terms
- Shipping

N

- t levels (ME,
  AA, Pav)
- Variation/consistency
- Bioavailability
- Anti-nutritional factors



Processing

- Pellet
- C

Animals

- Performance
- Disease
- Palatability
- Profit!

Feed Formulation will assist

CONCLUSION

- Corn is the largest production of cereals and there is sufficient corn globally to fulfill the demand for feed, food, fuel
- Soybean Meal will continue to be Major Protein Sources
- Strong demand cause price hike for Soybean and Corn. Will affect other ingredients price
- Price increase will result in higher production cost of meat and egg
- Indonesia will face difficulty to fulfill Feed Ingredients Demand. Will rely upon Trade
- Recommendations to Importers and Animal Industries are given



THANK YOU

USSEC U.S. SOYBEAN EXPORT COUNCIL

ASA American Soybean Association International Marketing

UNITED SOYBEAN BOARD

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