

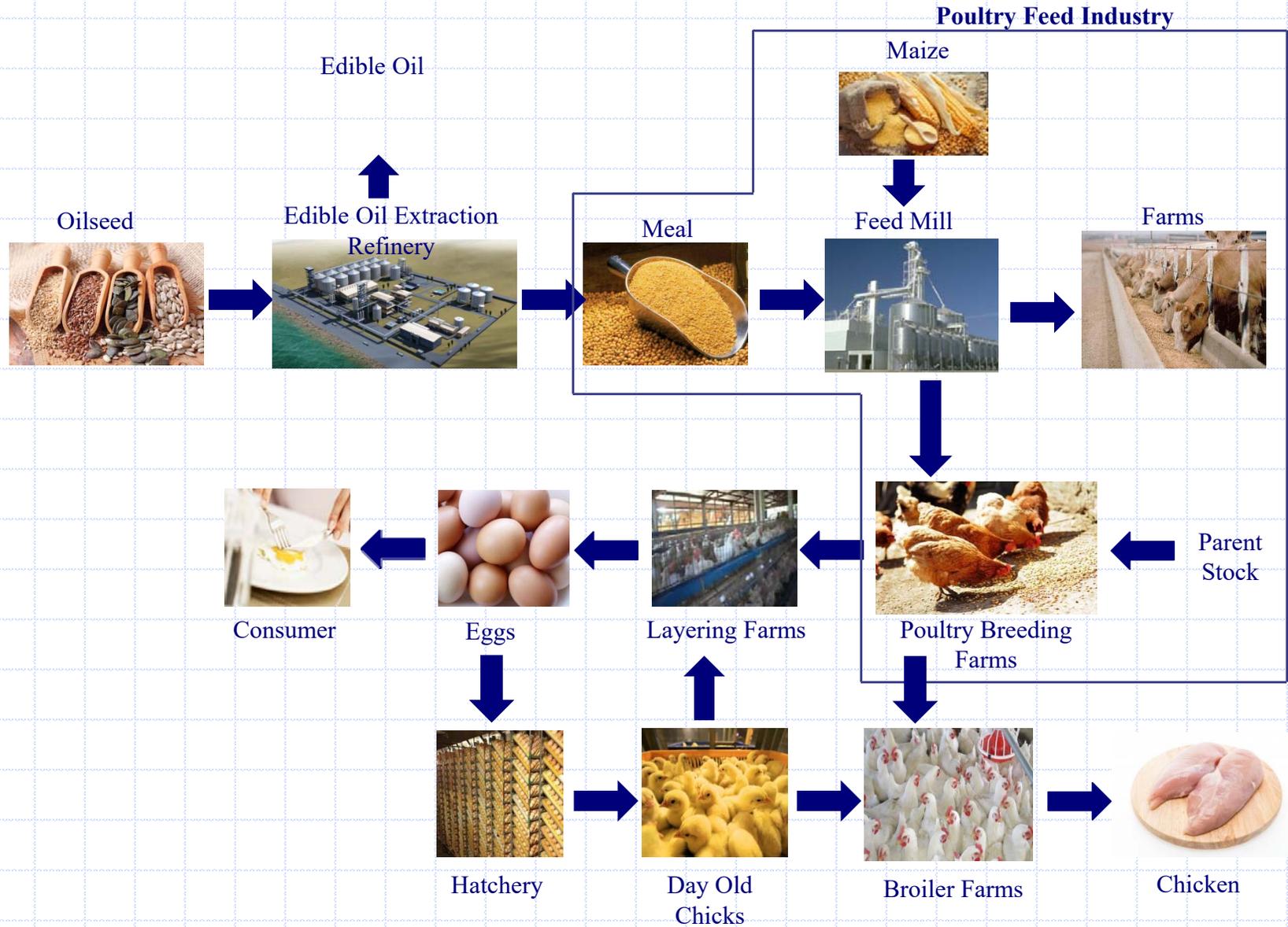


Food & Allied

Poultry Feed Industry

March 2019

Industry Process Flow



Poultry Feed | Types

- **Output:** Feed variants for poultry farms
- **Types of Feeds:** Starter feed, Growing feed, Layer feed and Broiler feed
- **Forms of Feed:** Mash, Crumbles and Pellets



Poultry Feed Industry| Global Dynamics

Global Regions:

Region	Layers	Broilers	Turkey	Others	Total	Regional Share
Middle East	5.5	9.2	0.3	0.2	15.2	3%
Africa	8.5	11.3	0.2	0.1	20.1	4%
North America	13.6	51	7.4	0.2	72.2	16%
Latin America	20.9	62.2	0.8	0.1	84	19%
Europe	28.8	47.5	5.7	3.5	85.5	19%
Asia-Pacific	66.1	105.9	0.2	2.6	174.8	39%
Total	143.4	287.1	14.6	6.7	451.8	100%

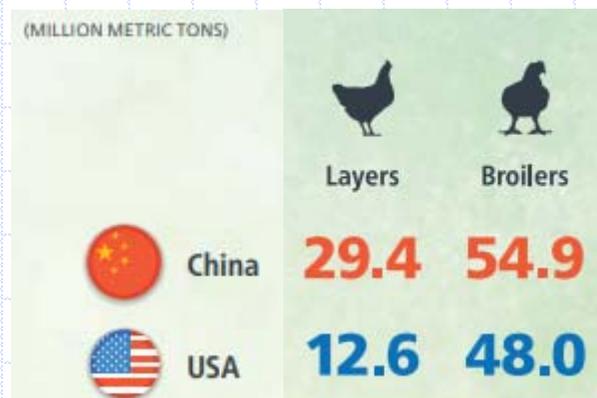
Feed Tonnage (Mln MT)

From a Global perspective, the feed industry can be valued at around ~\$460bln. Alltech roughly estimates that poultry constitutes 36% of the total industry ~ \$166bln

Specie Type:

Types	Share Tonnage	Share %
Broilers	287	64%
Layers	143	32%
Turkey	15	3%
Others	7	1%
	452	

Feed Tonnage (Mln MT)



- The combined production of China and the U.S. is close to one-third of global production 29% in layer and 36% broiler feed
- These two countries have been the top two in feed production since the first survey in 2011

Poultry Feed Industry| Global Dynamics

Average Global Feed Prices

Global Average	Layers	Broilers
2017	\$363	\$418
2016	\$370	\$422
Change (%)	-1.9%	-0.9%

- 2016 Witnessed decrease of 7% in Global Average prices of both Layer and Broiler Feed prices



Poultry Feed - Layer

- Bird's body weights is associated with feed consumption per day, that differs for layers and broilers
- Aim of layer's diet is to optimize egg production, in terms of egg number and egg size.
- Peak of laying is around 32 weeks
- Table shows egg laying bird's feed consumption per day in grams as per age

Age	Feed Consumption (g/day)
Week 1- 17	13-80
Week 18 onwards	100-105

- Type of feed consumed as per egg laying bird's age:

	Starter	Grower	Pre-layer	Egg Laying Starts	Layer Till Peak	Layer Post Peak
Layer	8 weeks	8-16 weeks	16-18 weeks	18 weeks	18-32 weeks	after 32 weeks



Poultry Feed - Broiler

- Feed for broilers destined to sold as whole bird or in pieces will differ from broiler feed destined to be sold for boneless meat
- For broilers, ideal nutrient density is 3 kg per day consumption for a 2 kg bird
- Table shows broiler's feed consumption per day in grams as per age

Age	Feed Consumption (g/day)
Week 1-5	10 - 100
Week 5-9	100 - 200

- Type of feed consumed as per broiler's age:

	Starter	Grower	Finisher	Total Cycle
Broiler	0-2 weeks	2-4 weeks	last 10 days	35-45 days



Poultry Feed | Inputs

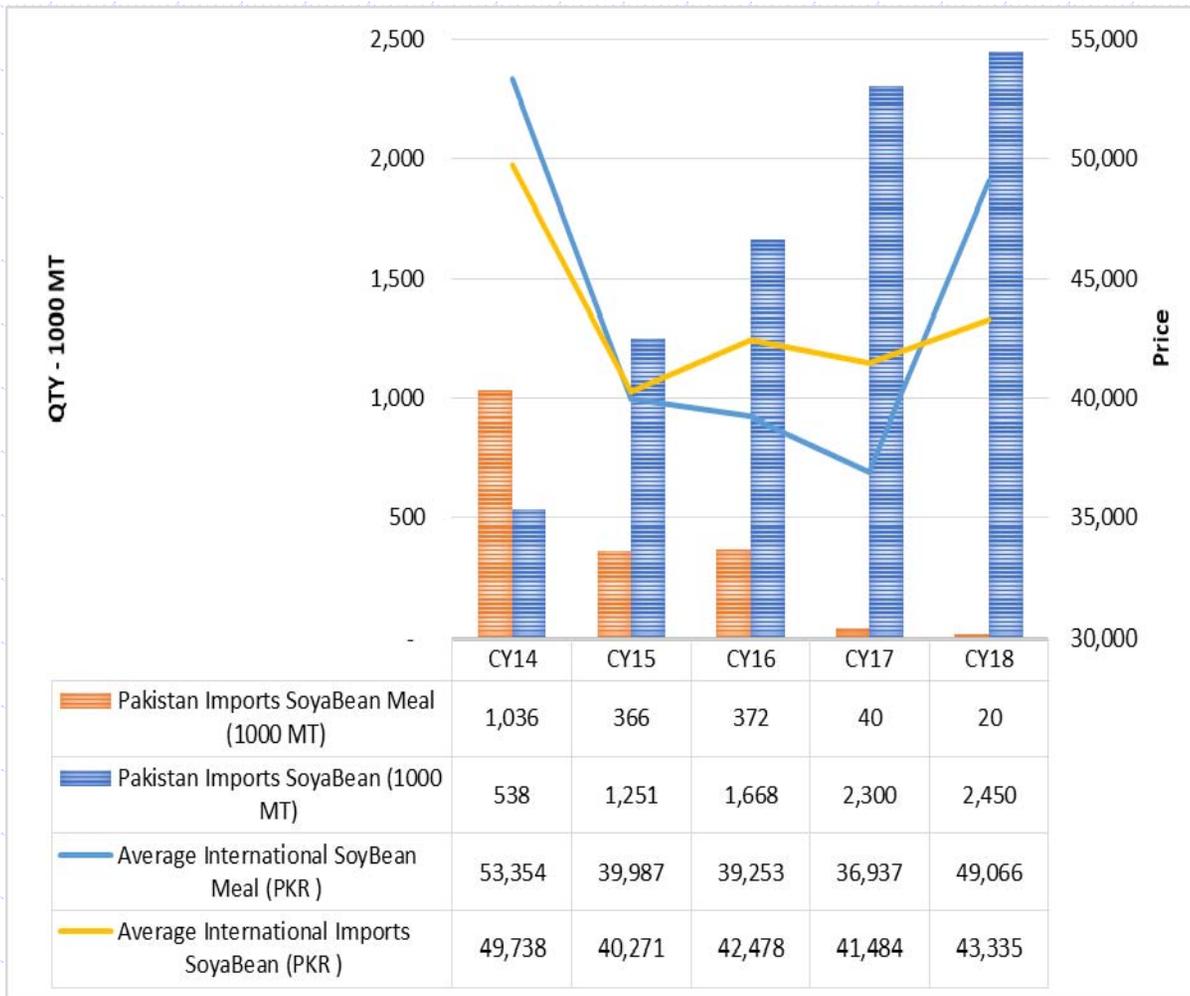
- Composition of feed is a very sensitive area, wrong proportion can lead to massive losses
- 20 to 25 ingredients are used in poultry feed variants
- Maize and Soybean meal are key ingredients in terms of weight and cost

Sample inclusion percentage of ingredients and cost of feed variant:

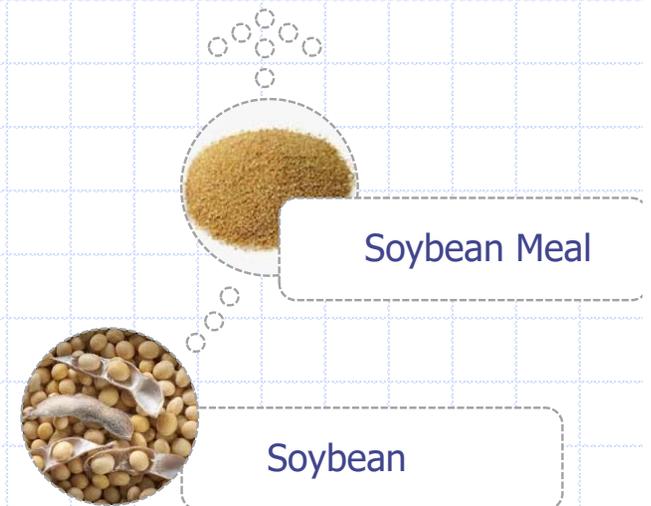
Indgredients	Composition (%)	Cost(PKR) /Kg	Net Cost (PKR)	Share (%)
Maize	50%	49	25	53%
Soyabean Meal	28%	55	15	33%
Rice Polish	10%	18	2	4%
Fish Meal	3%	61	2	5%
Sunflower Meal	3%	34	1	2%
Medical Premix	3%	-	-	0%
Poultry By-Product Meal	2%	59	1	3%
Limestone Powder / Granular	1%	3	0	0%
	100%		46	100%

Poultry Feed | Inputs | Key Cost Drivers

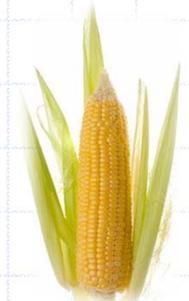
Soybean And Soybean Meal International Price Vs Pakistan Imports



- *Import based market for Soyabeen related products*
- *Increasing trend of import of soyabeen (seed) vs Soyaben Meal*
- *Decline in International Soybean prices, but rise in PKR due to weakening currency*



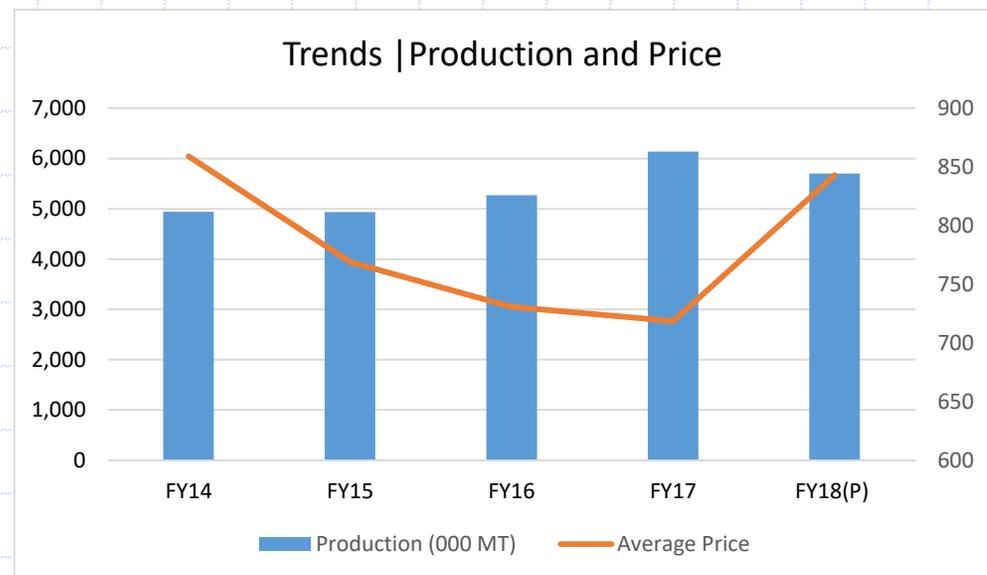
Poultry Feed | Inputs | Key Cost Drivers



Maize

Year	Area		Production		Yeild		Average Price	
	(000 Hectares)	% Change	(000 Tonnes)	% Change	Kg/Hec	% Change	PKR/ 40 Kg	% Change
FY14	1,168	-	4,944	-	4,233	-	859	0%
FY15	1,142	-2.2	4,937	-0.1%	4,323	2.1	769	-10%
FY16	1,191	4.3	5,271	6.8%	4,426	2.4	731	-5%
FY17	1,348	13.2	6,134	16.4%	4,550	2.8	718	-2%
FY18(P)	1,229	-8.8	5,702	-7.0%	4,640	2	843	17%

- Trend analysis for Maize, suggests an reduction in cultivation area in FY17-18 by 8.8 %
- Decrease in production by 7%
- Price of Maize prices remained high during FY18 (up by 17%)





Poultry Feed Industry Structure | Pakistan

~150 Registered
Feed Mills

~200
Unregistered
Feed Mills

~8Mln MT of
Feed Production
(FY18)



Top 10 Feed Industry Players

No.	Client	Capacity (MT)
1	Sadiq Feeds	1,664,000
2	Hi-Tech Feeds	1,123,000
3	Asian Poultry Feed	420,000
4	National Feeds	384,000
5	Big Feeds	336,000
6	Supreme Feeds	336,000
7	Capital Feeds	285,120
8	Sharif Feeds	252,000
9	Lahore Feeds	252,000
10	Shabbir Feeds	228,000
11	Shujabad Agro	225,000
	Total	5,505,120



Regulatory Structure

Regulatory Structure		
		Stage of Imposition
Custom Duty	2%	Import of feed manufacturing machinery
Sales Tax	7%	Local-Feed manufacturing machinery
Sales Tax	10%	On Soybean meal, maize, rice, wheat, fish meal & poultry by-product meal
Sales Tax	Exempt	On Canola/Sunflower Meal
Income Tax	4%	With Holding Tax

- Import from China results in an exemption of duty due to Free Trade Agreement
- UAE Govt. has lifted the ban on import from Pakistan's poultry industry. This is quite encouraging as gulf region is a big export market

Analysts

Adnan Dilawar
Unit Head
adnan@pacra.com

Contact Number: +92 42 3586 9504

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