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# Indonesia

# Grain and Feed Annual

# Indonesia Grain and Feed Annual Report 2012

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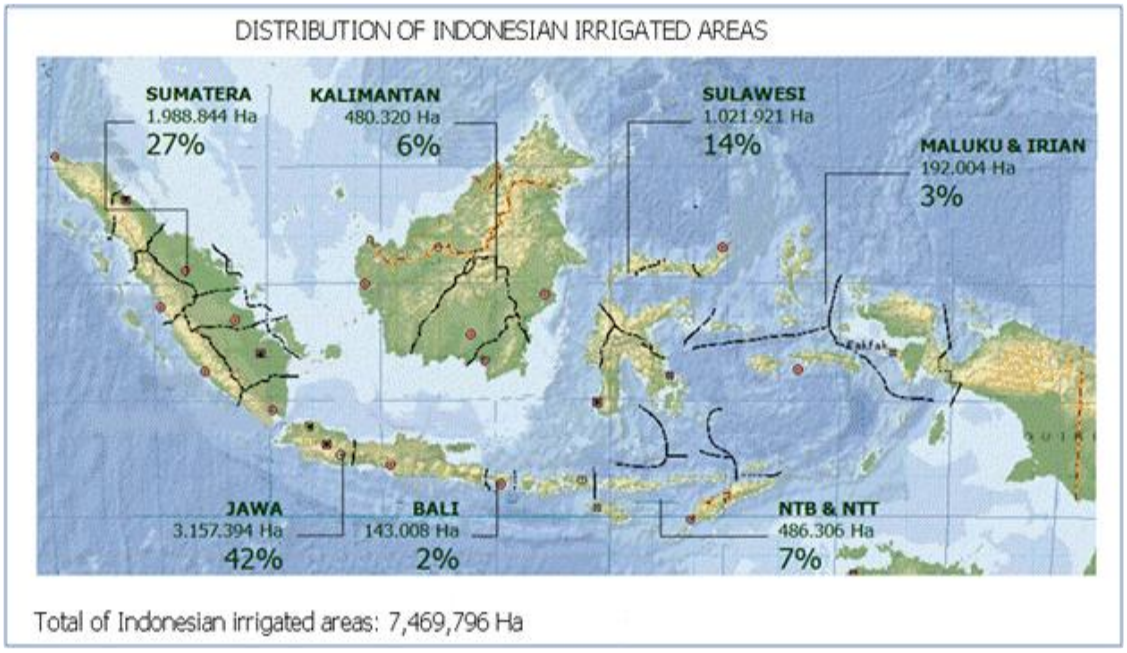
**Report Highlights:**
In marketing year (MY) 2011/12, Post forecasts Indonesian wheat imports to increase by approximately 12 percent to 7.4 million metric tons (MMT), compared to 6.6 MMT in MY 2010/11. Based on the corn import realization reported by the Indonesian Feed Millers Association (*Gabungan Pengusaha Makanan Ternak*, GPMT) Post revised MY 2010/11 Indonesian corn imports to 3.3 MMT from the previous estimate of 2.5 MMT. In line with the estimated increase of MY 2011/12 Indonesian corn production, Post estimates Indonesian corn imports to decline to 2.0 MMT. Referring to import realization by BULOG (the Indonesian National Logistic Agency), Post also increased MY 2010/11 Indonesian rice imports to 3.098 MMT from previous estimate of 2.775 MMT. Despite an estimated increase of MY 2011/12 Indonesian rice production, Post forecasts Indonesian rice imports to reach

1.95 MMT.

**Executive Summary:**

Indonesian Meteorology, Climatology, and Geophysics Agency (Badan *Meteorologi, Klimatologi, dan Geofisika*, BMKG) recently predicted that compared to its 30 year average (1981 – 2010), the beginning of dry season throughout Indonesia will start at its normal time in 51 percent of total area; later than normal in 40 percent; and earlier than normal in the remaining 9 percent. The dry season normally goes from April-October of each year. The level of rainfall during the dry season will be normal in 57 percent of the total area; higher than normal in 35 percent; and lower than normal in the remaining 8 percent.

In order to support a high-yielding farming system, irrigation infrastructure is a must. Indonesia is divided into 90 River Area Units (SWS = *Satuan Wilayah Sungai*) consisting of 5,000 River Basin Areas (DAS = *Daerah Aliran Sungai*). Water Resources Law No. 7/2004 stated that the supply of water to fulfill daily needs and for irrigation for farmers are the main priorities of water resources supply. The central government and provincial government are responsible for the primary and secondary irrigation development and improvement, while the farmers groups are entitled and responsible for the tertiary irrigation development and improvement. According to the Indonesian Ministry of Public Works in 2012, approximately 84 percent of Indonesian rice area is irrigated while the remaining 16 percent is rain-fed.




However, based on the audit report conducted by the Directorate General for Water Resources, Ministry of Public Works in 2010, approximately 54 percent of the irrigation system is in good condition while the remaining 46 percent is in disrepair. The government's ability to address the deteriorating condition of the irrigation infrastructure is limited due to lack of funds. Reportedly, the government can only meet around 40 - 50 percent of the actual irrigation operational and maintenance funds needed. Natural

disasters, degradation process of irrigation water resources, and the lower level of river water flow have also contributed to the damage. In facing the upcoming dry season that BKMG predicts will be a normal, the following table shows the preparedness of water supply at major reservoirs:

**Status of Water Surface Level at Major Indonesian Water Reservoirs**
**Period: February 29, 2012**

| No. | Water Reservoir | Elevation and Volume | | | | | Elevation for Drought Preparedness (m) | Monitoring Date | Status |
|---|---|---|---|---|---|---|---|---|---|
| | | Normal | | Monitored | | Deviation | | | |
| | | Elevation (m) | Vol. (Million $m^3$) | Elevation (m) | Vol. (Million $m^3$) | (m) | | | |
| 1 | 2 | 3 | 4 | 5 | 6 | ( 5 - 3 ) | 7 | 8 | 9 |
| **WEST JAVA** | | | | | | | | | |
| 1 | **Djuanda** | 98,85 | 700,86 | 96,39 | 532,07 | -2,46 | 87,50 | 29/02/2012 | Alert |
| 2 | **Cirata** | 213,45 | 334,40 | 214,73 | 396,83 | 1,28 | 206,00 | 29/02/2012 | Normal |
| 3 | **Saguling** | 636,70 | 266,15 | 633,30 | 165,12 | -3,40 | 625,00 | 29/02/2012 | Alert |
| **CENTRAL JAVA** | | | | | | | | | |
| 1 | **Kedungombo** | 85,65 | 544,56 | 89,28 | 680,68 | 3,63 | 79,50 | 20/02/2012 | Normal |
| 2 | **Wonogiri** | 133,23 | 235,46 | 135,67 | 374,00 | 2,44 | 129,50 | 20/02/2012 | Normal |
| 3 | **Sempor** | 66,75 | 26,37 | 72,12 | 38,33 | 5,37 | 43,00 | 20/02/2012 | Normal |
| 4 | **Wadaslintang** | 184,85 | 387,16 | 183,82 | 376,52 | -1,03 | 124,00 | 20/02/2012 | Alert |
| **YOGYAKARTA** | | | | | | | | | |
| 1 | **Sermo** | 132,84 | 12,78 | 135,01 | 15,46 | 2,17 | 127,55 | 30/01/2012 | Normal |
| **EAST JAVA** | | | | | | | | | |
| 1 | **Sutami - Lahor** | 266,00 | 96,58 | 266,20 | 100,60 | 0,20 | 246,00 | 20/02/2012 | Normal |
| 2 | **Selorejo** | 615,45 | 19,21 | 618,00 | 25,33 | 2,55 | 598,00 | 20/02/2012 | Normal |
| 3 | **Bening** | 104,12 | 8,65 | 106,05 | 13,29 | 1,93 | 96,40 | 20/02/2012 | Normal |
| 4 | **Wonorejo** | 170,03 | 58,42 | 166,03 | 47,94 | -4,00 | 141,00 | 20/02/2012 | Alert |
| **LAMPUNG** | | | | | | | | | |
| 1 | **Batutegi** | 274,00 | 690,00 | 263,46 | 488,63 | -10,54 | 208,00 | 30/12/2011 | Alert |
| **SOUTH SULAWESI** | | | | | | | | | |
| 1 | **Bili-Bili** | 77,34 | 51,28 | 81,74 | 64,39 | 4,40 | 66,84 | 10/12/2011 | Normal |

Source: Ministry of Public Works 2012.

Ministry of Public Works reported that the Ministry is working on the construction of the Jatibarang water reservoir located in Central Java. The physical development of the water reservoir has reached 37.5 percent. The water reservoir has a storage capacity of 20.4 million cubic meters. The water reservoir is expected to be fully operational in 2014.

The Government of Indonesia (GOI) has targeted an economic growth rate of 6.7 – 7 percent in 2012. This is primarily due to relatively stable macroeconomic and political conditions. The inflation rate is projected at 4.5 ±1 percent in 2012 and 2013. Rice prices contribute significantly to the overall inflation rate and sensitivities about the price of rice forces the Government of Indonesia (GOI) to take some measures to maintain its stability.

## Wheat

Total Indonesian wheat imports in MY 2011/12 are estimated to increase by 12 percent to 7.4 MMT from the MY 2010/11 level of 6.6 MMT. Some of this predicted growth is because several new wheat millers and multinational food manufacturers have begun production and are driving demand. Post predicts that in the current marketing year, wheat imports from the United States will reach an estimated 640,000 MT. This decrease is primarily due to the return of Australia into Indonesian market. Australia's closer proximity to Indonesia has been the major factor providing more opportunity to supply wheat into the country. Finally, new trends in the Indonesian bakery and biscuit sectors are indicating a higher preference for more U.S. soft white wheat according to an industry analyst.

## Corn

Based on import realization reported by GPMT, Post revised MY 2010/11 Indonesia corn imports to 3.3 MMT from previous estimate of 2.5 MMT. Indonesia's production of corn in MY 2011/12 is estimated to significantly increase to 8.1 MMT compared to 6.8 MMT in previous MY 2010/11. The increase is mainly due to favorable weather, increase in harvested area, and increased yield from more use of hybrid seed and less pest and disease incidents. However, new feed mills expected to start operational this year will maintain the high level of imports of corn.

## Rice

Based on import realization by BULOG, Post revised MY 2010/11 Indonesian rice imports to 3.1 MMT of milled rice equivalent from previous estimate of 2.775 MMT. Post predicts MY 2011/12 Indonesian rice production to slightly increase to 36.3 MMT of milled rice equivalent compared to 35.5 MMT of milled rice equivalent produced in previous MY 2010/11. The increase is primarily due to favorable weather, slightly larger harvested area, and less pest and disease incidents. Nonetheless, in order to maintain rice prices in domestic market and main the secure level of stock held by BULOG, Post estimates that in MY 2011/12 Indonesia would still need to import a total of 1.95 MMT of milled rice equivalent.

**Commodities:**
Select

**Production:**
**CORN**

Production

Indonesia corn production is expected to increase significantly over the past year. Favorable weather has provided better opportunity for farmers in the upland area to grow corn during the second cropping season, and for farmers at irrigated lowland areas on Java to grow corn during the third crop cycle. This weather condition is different than that in 2009 and 2010 when Indonesia had a wet dry season when farmers on the upland area preferred to continue growing rice during the second crops due to the availability of water from rainfall. During the current marketing year, there will be more farmers on the upland area who will leave the field idle during the third crop cycle due to limited rainfall, compared to the same period in 2009 and 2010. Farmers reported that most of the corn planted on upland areas is already harvested at the middle of February. The first and major corn planting season normally takes place from November to February (49 percent). The second planting season takes place from March to June (37 percent). The last one occurs in July to September (14 percent). Larger use of hybrid corn seed that is reported to reach 50 percent of the total corn area combined with less pest and disease incidents will also increase yield per hectare.

The Indonesian Ministry of Agriculture (MOA) has some programs in place to assist farmers to have better access to high yielding corn and paddy seed since 2007. Those programs namely:

1. Direct Support for High Yielding Seeds of Corn and Paddy (*Bantuan Langsung Benih Unggul*, BLBU) is a MOA program of providing free seeds to the farmers to be distributed for planting. However, bureaucratic administrative process often impedes the seed to get to the farmers on time. Industry and farmers reported that the quality of the free seed is also less than the quality of seed that is commercially available. Lower quality seed resulted to a lower yield. In some cases, hybrid corn seed from this program is also distributed to farmers who are already used to growing hybrid seeds. This practice fails the initiative to expand areas grown with hybrid corn seed. Thus, instead of increasing the overall yield, the free corn seed program tends to lower corn production.
2. National Seeds Reserve (*Cadangan Benih Nasional*, CBN) is a MOA program of providing free seed to farmers to be used for post disaster recovery. The seed will be used for replanting during harvest failure due to flood, extreme drought, or extreme pest and disease outbreaks. The seeds under this program can also be used for research and development program.
3. Seed Subsidy Program: is MOA program in giving subsidy for seeds that are commercially distributed by the seeds state own companies such as PT. PERTANI and PT. Sang Hyang Seri.

In 2012, MOA will allocate a total of 67.5 MMT of non hybrid paddy seed, 3 MMT of hybrid paddy seed, 12.5 MMT of dry land paddy seed, and 3 MMT of hybrid corn seed under the BLBU program. Realization of BLBU program 2007 - 2011, seed subsidy program 2007 - 2011, and allocation of national seed reserve 2012 can be seen in the following tables:

**Realization of BLBU Program for Paddy and Corn**
**2007 - 2011**

| No. | Seed | Realization (In MT) | | | | |
|---|---|---|---|---|---|---|
| | | **2007** | **2008** | **2009** | **2010** | **2011** |
| 1. | Non hybrid paddy | 5961 | 20847 | 24786 | 63475 | 69203 |
| 2. | Hybrid paddy | 1023 | 3330 | 8488 | 6439 | 5814 |
| 3. | Dry land paddy | | | | 6998 | 12175 |
| 4. | Hybrid corn | 3850 | 6436 | 9986 | 13904 | 7626 |

Source: Ministry of Agriculture, 2012.

**Realization of Seed Subsidy for Corn and Paddy Seed**
**2007 - 2011**

| No. | Seed | Realization | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 2007 | | 2008 | | 2009 | | 2010 | | 2011 | |
| | | (MT) | (Bill. Rp.) | (MT) | (Bill. Rp.) | (MT) | (Bill. Rp.) | (MT) | (Bill. Rp.) | (MT) | (Bill. Rp.) |
| 1. | Hybrid paddy | 88,881 | 59,550 | 77,743 | 71,524 | 67,771 | 63,840 | 63,840 | 60,456 | 42,166 | 39,932 |
| 2. | Hybrid corn | 780 | 3,902 | 480 | 3,096 | 1,093 | 7,924 | 7,924 | 57,473 | 580 | 4,209 |
| 3. | Composite corn | 1,190 | 2,690 | 1,162 | 1,842 | 959 | 1,521 | 1,500 | 2,386 | 209 | 332 |

Source: Ministry of Agriculture, 2012.

**National Seed Reserve Allocation 2012**

| No. | Seed | Volume (In MT) | Total Area (In Ha) |
|---|---|---|---|
| 1. | Non hybrid paddy | 19801.2 | 792048 |
| 2. | Hybrid paddy | 750 | 50000 |
| 3. | Hybrid corn | 1743 | 116200 |
| 4. | Composite corn | 155 | 6200 |

Source: Ministry of Agriculture, 2012

Currently, prices of corn at farmer level ranges from Rp. 2,450/kg ($267/MT) to Rp. 2,550/kg ($278/MT). The price of hybrid corn seed also went up. Currently, prices of hybrid corn seed ranges from Rp. 55,000/kg ($6.00/kg) to Rp. 70,000/kg ($7.60/kg) compared to Rp. 40,000/kg ($4.36/kg) to Rp. 60,000/kg ($6.54/kg) in 2011.

Given the aforementioned situation, Post estimates MY 2011/12 harvested area of corn to increase to 3.08 million hectares compared to 2.85 million hectares in previous MY2010/11. In line with the increase in harvested area, Post estimates MY 2011/13 Indonesia corn production to increase to 8.7 MMT compared to 6.8 MMT produced in MY 2010/11. Assuming weather will remain normal that will provide incentives and opportunities for farmers to grow more corn and more hybrid corn use, Post forecasts MY 2012/13 corn production to further increase to 8.9 MMT.

**RICE, MILLED**

Production

MY 2011/12 Indonesian rice production is expected to be higher than MY 2010/11. Favorable weather that led to a slight increase in harvested area and better yields are the main factors behind the increase. Farmers' decision to grow secondary crops on irrigated land and to leave the land idle on upland area during the third crop cycle has reduced the pest and disease incidents. More sunshine during the day will provide opportunity to sundry wet paddy and better photosynthesis that leads to a higher milling rate.

Currently, the first main harvest of paddy on Java is still going on in major rice producing areas in Java. Some farmers who have finished their main harvest are replanting paddy seed to continue with the second crop cycle on irrigated land. Farmers on upland areas on Java are growing corn. The second harvest is expected to occur in June through July 2012.

Post's recent observation visit to major rice producing areas in West Java, Central Java, Yogyakarta, and East Java showed that more farmers grew paddy during the first crop cycle due to the availability of water from rainfall. Farmers reported that there are less brown hopper and rats attack compared to the first crop cycle in MY 2010/11. However, farmers are not growing paddy at the same time in order to try to prevent prices from falling during the main harvest. Farmers in those areas continue growing more Ciherang variety than the more traditional IR64.

Left: A case in Subang, West Java in 2011. More brown leaves showed more brown hoppers attacks. Right: Paddy field in Sragen, Central Java in 2012. Paddy looked healthier and green.

Left: wet paddy recently harvested in

first main harvest of MY 2010/11 that has more green husked paddy and higher moisture content. Right: wet paddy recently harvested in first main harvest of MY 2011/12 with less green husked paddy and less moisture content from favorable weather.

Left: different stages of paddy field in East Java. Right: farmers are harvesting paddy in Central Java in mid February 2012.

Some farmers met during the field trip reported that they had to harvest the paddy sooner than it should to prevent them from suffering greater losses due to sharp decline in wet paddy price during the first main harvest.
Given the above factors, Post revised the MY 2011/12 harvested area to 12,100,000 hectares compared to initial estimate of 12,150,000 hectares. Post also decreased the MY 2011/12 rice production to 36.3 MMT of milled rice equivalent from earlier estimate of 37.3 MMT. Yet, the estimated rice production in MY 2011/12 is higher compared to the previous MY 2010/11 of 35.5 MMT due to larger harvested area and better yield.

Indonesian government realizes the critical situation of Indonesian rice production. High rate of land conversion to non-agricultural uses near urban areas in Java may result in a stagnant or even declining harvested area. Yield tends to decline due to deteriorating soil quality as a result of improper fertilization. Area expansion outside of Java is also hindered by lack of infrastructure and less fertile soil compared to Java. Therefore, GOI are taking some measures to increase or at least maintain Indonesian rice production to meet domestic demand. These actions include:

- Encourage farmers to grow more high-yielding and more pest and extreme climate resistant paddy seed use such as Inpari and Inpara.
- Continue efforts to expand area outside of Java with plans to provide grain dryers to provincial food crops offices all over Indonesia.
- Establish a closer cooperation between Indonesian Meteorology, Geophysics, and Climatology Agency (BMKG) with provincial food crops offices in providing weather information to be disseminated to farmers' groups.
- Continue the free seed program and fertilizer subsidy, and
- Implement intensification in selected areas namely Lampung, South Sumatera, Banten, West Java, Central Java, Yogyakarta, East Java, South Kalimantan, South Sulawesi, and West Nusa Tenggara.

Another measure taken by GOI to slow down high rate of land conversion to non agricultural uses is the issuance of GOI regulation No. 12/2012 on Incentive to the Conservation of Sustainable Food Crops Land signed by President of the Republic of Indonesia, Susilo Bambang Yudhoyono on January 9, 2012. The regulation provides incentive for food crop farmers who can maintain the ownership of their land in the form of:

1. Agricultural infrastructure development.
2. Funding for research and development of seed and high yielding variety.
3. Easy access to information and technology.
4. Assistance on agricultural inputs.
5. Guarantee on the issuance of land ownership certificate, and/or
6. Award for farmers with high achievement.

Priority will be given to farmers whose land productivity is lower than the average of national yield, whose land needs an irrigation facility, and whose land is located within less than 100 meters away from main road. However, the effectiveness of this regulation calls for a big question since one of the requirements to be put on the priority list is a minimum planted area of 25 hectares in one overlay. Most of Indonesian farmers are peasant farmers whose average land ownership is less than 0.5 hectares.

**Consumption:**

**WHEAT**

The high demand for wheat flour and the low prices of wheat flour sold in Indonesia, relative to other Asian countries, has motivated many multinational wheat flour based food manufacturers to start their operations in Indonesia. Small and medium wheat-based enterprises are also growing by three to five percent annually. APTINDO reported that currently around 200,000 small and medium scale enterprises which involve a total of 2.0 million workers are operational in Indonesia.

In MY 2010/11, Indonesian annual per capita wheat flour consumption rate is 18 kg. Stable economic conditions have allowed for middle and upper middle class consumers to diversify their diet. Instead of having rice for three meals, many Indonesians are eating bread for breakfast. The number of high-end bakeries is continuously growing, mainly in major Indonesian cities such as Jakarta, Surabaya, Medan, and Bandung. The price of instant noodles is currently cheaper than rice and many more middle to lower income consumers substitute instant noodles for breakfast or dinner. As a result, the noodle industry continues to be the fastest growing sector and constitutes 60 percent of overall Indonesian wheat flour consumption. The bakery industry follows with 20 percent consumption share, while household and the commercial biscuit sector each takes the balance of 10 percent consumption share. As a result of these factors, MY 2011/12 Indonesian wheat consumption is estimated to increase to 6.6 MMT, over the previous MY 2010/11 of 6.0 MMT.

**CORN**

Most of Indonesian corn farmers still use composite seed due to the favorable taste of composite corn seed that are grown for human consumption. Hybrid corn seed grown is mostly earmarked for feed consumption. With the coming of three new feed millers located in East Java and West Java, the total installed capacity of feed millers is increased to 15.5 MMT in 2012. This industry is estimated to grow by 10 percent assuming the economic and political situation remains stable; there are no significant

outbreaks of poultry diseases; and a stable Indonesian rupiah against the U.S. dollar. The existing feed millers are running at 77 – 80 percent of the total installed capacity.

GPMT estimated that CY 2012 feed consumption will reach approximately 12.3 MMT. Poultry industry consumes approximately 83 percent of the total feed consumed. Aquaculture consumes 11 percent and the balance of 6 percent is consumed by cattle and swine. However, Indonesian feed millers are heavily reliant on imported feed ingredients as can be seen in the following table:

**Sources of Some of Indonesian Feed Ingredients**

| No. | Feed Ingredient | Sources | |
|---|---|---|---|
| | | Local | Import |
| 1. | Corn | 90-95 | 5-10 |
| 2. | Fish Meal | 5-10 | 90-95 |
| 3. | MBM | 0 | 100 |
| 4. | Soybean Meal | 0 | 100 |
| 5. | Rapeseed Meal | 0 | 100 |
| 6. | Corn Gluten Meal | 0 | 100 |
| 7. | Feed Additive | 0 | 100 |
| 8. | Rice Bran | 100 | 0 |
| 9. | Copra Meal | 100 | 0 |
| 10. | Palm Kernel Meal | 100 | 0 |
| 11. | CPO | 100 | 0 |

Source: Indonesian Feed Millers Association (GPMT)

GPMT reported that corn normally accounts for 50 percent of feed formulations while soybean meal 15-20 percent, corn gluten meal 3 percent, CPO 2 percent, fish meal 5 percent, rice bran 15 percent, wheat pollard 8 percent and premix 0.6 percent. With the high prices of corn and other substantial feed ingredients in the international commodity market, feed millers should make some changes in the feed

formulation such as substituting small portion of feed corn with DDGS and Corn Gluten Meal (CGM), as well as sourcing more feed ingredients from the local market especially for the source of protein in feed. Yet there are some factors that inhibit feed millers from sourcing more locally - such as lower protein content, higher raw fiber content, high rancidity, limited and inconsistent corn supply for commercial scale feed millers, and difficulties in storage. Therefore, feed millers reported that they are determined to import corn at any price to meet the demand.

Based on import realization reported by GPMT, Post revised MY 2010/11 Indonesian corn import to 3.3 MMT compared to previous estimate of 2.5 MMT. Considering the above given factors, Post estimated the MY2011/12 corn consumption by feed industry to increase to 6.15 MMT compared to the previous MY 2010/11 of 5.6 MMT, while a total of 4.5 MMT of corn will go for human consumption. In MY 2012/13 these corn consumptions for feed industry is forecast to increase to 6.7 MMT, while corn consumption for food will remain stagnant at 4.5 MMT.

**RICE**

Some of the imported rice is going for BULOG's market operation in order to dampen the price of medium quality rice in the domestic market. During the period of January to December 2011 a total of 400,000 MT of rice has been distributed into the commercial market. During the period of January – March 2012, BULOG has flooded the market with a total of 225,000 MT under market operations.

BULOG will also use the stock for Rice for the Poor (*Raskin*) program. In MY 2011/12 BULOG will distribute a total of 3.15MMT of *Raskin* rice to 17.5 million poor families. Each family will receive 15 kg of rice/month at the price of Rp. 1,600 /kg. As of early April 2012, BULOG has distributed a total of 900,000 MT of rice under this *Raskin* program.

In line with the population growth, Post estimated MY 2011/12 Indonesian rice consumption to increase to 39.550 MMT from 39 MMT in previous MY2010/11. The consumption is forecast to increase further to 40 MMT in MY 2012/13.

**Trade:**
**WHEAT**

At the time of the Indonesian monetary crisis in 1998, there were only four Indonesian flour millers. Currently there are 17 Indonesian flour millers with a total installed capacity of 8.0 MMT per year. Those flour millers are generally running at 60 percent of the total installed capacity. This year, another eight new flour millers will likely come online, with an estimated combined annual capacity of 2.0 MMT. This will bring the total installed annual capacity to 10.0 MMT. Most of the new flour millers will be located outside of Java. Indonesian flour millers absorb a total of 5,300 workers with total assets of Rp. 12.9 trillion ($1.4 billion).

Based on the growing flour industry in Indonesia, Post estimates that MY 2011/12 wheat imports will increase by 12 percent to 7.4 MMT compared to the previous MY 2010/11 of 6.61 MMT. A growing wheat flour-based food industry will create more demand for wheat and will further increase wheat

imports in MY 2012/13 to 7.8 MMT. In MY 2010/11, due to its geographic proximity to Indonesia and the noodle industry's preference for Australian Standard White Wheat, Australia held the largest market share of imported wheat (68 percent), followed by Canada (17 percent) and the United States (14 percent). In MY 2011/12, the share of the U.S. wheat imports into Indonesia is expected to decrease to 9 percent due to the return of Australia in supplying wheat to Indonesian market. Provided that there will be an increase in domestic flour mills capacity that will increase demand, U.S. wheat export to Indonesia are forecasted to slightly increase to 10 percent in MY 2012/13.

Based on the Global Trade Atlas data on MY 2009/10 Indonesian wheat flour imports, Turkey held the largest market share of 57 percent, followed with Sri Lanka (20 percent) and Belgium (10 percent). In MY 2010/11, Indonesia imported 754,000 MT of flour, or an equivalent of 1,031,472 MT of wheat.

Indonesia's issue with Turkey over accusations that Turkey is dumping wheat flour on the Indonesian market remains a concern for domestic flour millers. After a lengthy investigation, the Indonesian Anti-Dumping Commission claims to have found evidence that Turkey exports their wheat flour to Indonesia at a dumped price. On December 2009, the Indonesian Minister of Trade recommended to the Indonesian Minister of Finance to impose anti-dumping import duties on Turkish wheat flour. However, to date, the implementation of these anti-dumping duties on Turkey remains unclear and Turkish wheat flour continues to enter the market. Therefore, on January 25, 2012 Indonesian Flour Millers Association (*Asosiasi Pengusaha Tepung Terigu Indonesia*, APTINDO) filed a law suit against the Indonesian Minister of Finance for postponing the implementation of anti dumping duty against wheat flour imports from Turkey. APTINDO reported that the postponement is required by a bilateral agreement between Indonesia and Turkey. Furthermore, APTINDO claimed that the absence of the anti dumping duty to Turkish wheat flour has made Indonesia suffers a total loss of Rp. 69 billion ($7.5 million) from the additional tax. No progress of this law suit has been reported to date.

The Global Trade Atlas reported that the market share of Turkish wheat flour in MY 2010/11 is growing to 60 percent of total wheat flour imports compared to 56 percent in MY 2009/10 and 53 percent in MY 2008/09.

## CORN

Corn contributes to 80 percent source of energy in feed. Despite higher domestic production, seasonal supply, high moisture content, and aflatoxin resulted from improper post harvest management, combined with higher installed capacity of feed millers will continue to drive imports. Therefore, Post estimated that MY 2011/12 Indonesian corn import to remain high at 2 MMT although it will decline from 3.3 MMT over the previous marketing year. Post forecast that Indonesian corn imports in MY 2012/13 will remain at 2 MMT due to the same reason. According to Global Trade Atlas, in MY 2010/11, Argentina held the largest market share of 34 percent, followed by India (31 percent), the United States (15 percent), and Brazil (14 percent).

Although there are concerns from feed millers over the quality and uncompetitive price of Dried Distillers Grain Soluble (DDGS) compared to other source of energy in feed formulation, Indonesia continues to increase its import of DDGS. In CY2011 Indonesia imported a total of 261,000 MT of DDGS mainly from the United States (98 percent), compared to 252,000 MT in CY2010. Japan

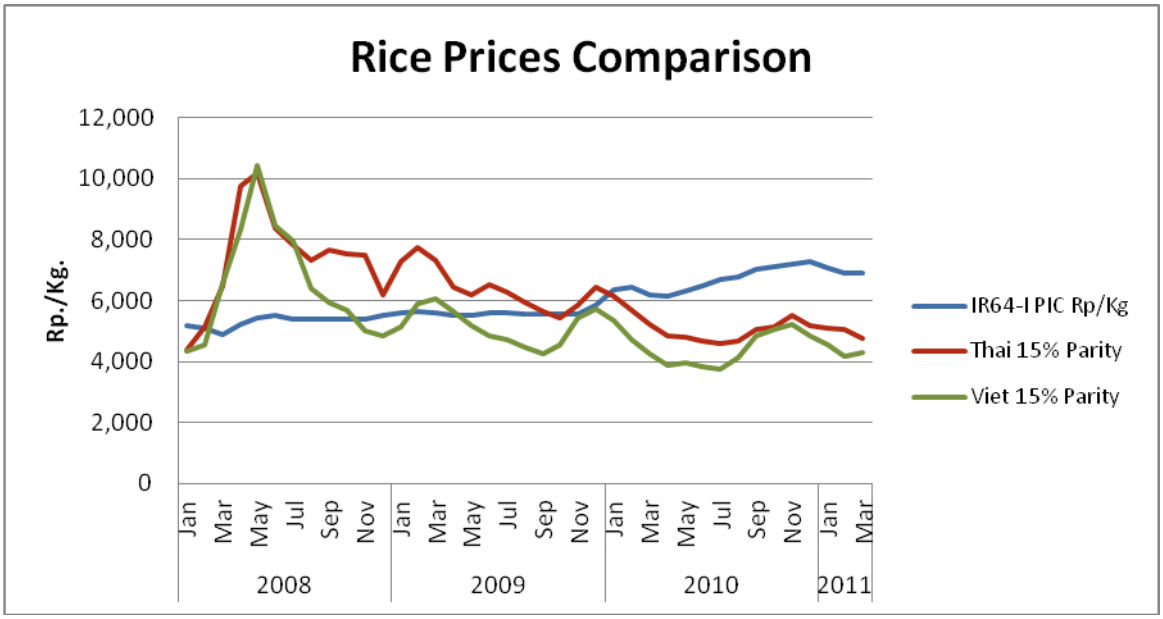
supplied the balance of the DDGS demand for Indonesia. In CY 2011, Indonesia imported approximately 165,000 MT of Corn Gluten Meal (CGM) mainly also from the United States (67 percent), while China (30 percent) and India (2 percent) supplied the balance. Frequent promotional activities and technical assistance provided by the U.S. Grain Council in conjunction with other promotional activities by other U.S. companies have led to this success.

## RICE

In order to maintain the Indonesian national logistic agency (BULOG) minimal stock level of 1.5 MMT of rice by the end of the year, in August 2011 GOI authorized BULOG to import a total of 1.9 MMT rice. During the period of August – December 2011, a total of 1.2 MMT from the allocation landed in the country. The remaining 700,000 MT landed in the country during the period of January – March 2012. BULOG has stopped the importation of rice in early March 2012 in order to avoid violating regulation that prohibits imports of rice one month prior to, during, and two months after the main harvest period.

Import realization by BULOG during the second semester of 2012, combined with import realization of BULOG during the first semester of 2011 of approximately 1.2 MMT, import realization of specialty rice, and a small amount of smuggled rice at Indonesian border areas have increased the estimate of MY 2010/11 Indonesian rice imports to 3.1 MMT from Post earlier estimate of 2.775 MMT.

High price disparity between Indonesia's most widely consumed rice and Viet 15 percent broken rice, as well as Thai 15 percent broken rice will continue to provide incentives for unauthorized imports, especially through Indonesian border areas.




Source: Cipinang wholesale rice market, The Rice Trader, processed by FAS Jakarta.

In MY 2011/12, BULOG targets to procure 4.5 MMT of rice. As of early April 2012, BULOG has procured a total of 630,000 MT from the domestic market. Assuming an optimistic scenario that BULOG will manage to procure the same amount of rice from domestic market as last year, combined with already materialized import in first semester of 2012 of approximately 700,000 MT, BULOG will need to procure at least 1.4 MMT of rice from the international market. Assuming the same amount of specialty rice and smuggled rice, Post forecasts that MY 2011/12 Indonesian rice imports to reach 1.95 MMT. In line with significantly declined beginning stock of MY 2012/13, higher demand for specialty rice by international restaurants, and increased consumption, Post forecast that Indonesian will need to import 1.45 MMT of rice in MY 2012/13.

**Stocks:**

**RICE**

MY 2011/12 ending stock of Indonesia rice is estimated to be at 4.9 MMT, and forecast to further decline in MY 2012/13 to 3.3 MMT due to higher consumption and lower beginning stock of MY 2011/12.

**Policy:**

**WHEAT**

On December 14, 2011, the Indonesian Ministry of Finance issued Decree No. 213/PMK.011/2011, increasing import duties for some grain & feed and oilseeds to five percent from the previous temporary applied rate of zero percent. The previous zero tariff rates had been enforced since January 2011. Wheat and meslin falls under the HS Code 1001.99.90.90 is subject to this tariff increase. Please refer to report ID1149: Indonesia Grain and Feed and Oilseeds Update Dec 28, 2011 for further information regarding this decree.

**RICE**

In MY 2011/12, BULOG will procure a total of 4.5 MMT of milled rice consisting of 4.1 MMT of medium quality rice and 400,000 MMT of premium quality rice. BULOG must buy paddy and rice from domestic market, which prices are lower than the government purchasing price (*Harga Pembelian Pemerintah*, HPP). According to the Presidential Instruction No. 3/2012 signed on February 27, 2012, BULOG can only buy paddy or rice that meets the following criteria and using the following HPP:

| Quality Requirement | | Wet Paddy (Rp) | | Dry Paddy (Rp.) | | Rice (Rp) | |
|---|---|---|---|---|---|---|---|
| | | Old | New | Old | New | Old | New |
| Moisture Content | Max | 25% | 25% | 14% | 14% | 14% | 14% |
| Empty Husks/Dirt | Max | 10% | 10% | 3% | 3% | - | - |
| Broken | Max | - | - | - | - | 20% | 20% |
| Price at farmer's level | | 2,640 | 3,300 | - | - | - | - |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Price at mill's level | | 2,685 | 3,350 | 3,300 | 4,150 | - | - |
| Price at Bulog warehouse | | - | - | 3,345 | 4,200 | 5,060 | 6,600 |

Usually June is the critical time to look at BULOG domestic procurement target. Should BULOG miss the June target, GOI may then consider making a decision on imports to maintain BULOG's stock at a secure level.

**Production, Supply and Demand Data Statistics:**
PSD: WHEAT

| Wheat<br>Indonesia | 2010/2011 | | 2011/2012 | | 2012/2013 | |
|---|---|---|---|---|---|---|
| | Market Year Begin: Jul 2010 | | Market Year Begin: Jul 2011 | | Market Year Begin: Jul 2012 | |
| | USDA Official | New Post | USDA Official | New Post | USDA Official | New Post |
| Area Harvested | 0 | 0 | 0 | 0 | | 0 |
| Beginning Stocks | 1,258 | 1,258 | 1,620 | 1,620 | | 2,135 |
| Production | 0 | 0 | 0 | 0 | | 0 |
| MY Imports | 6,611 | 6,611 | 6,700 | 7,400 | | 7,800 |
| TY Imports | 6,611 | 6,611 | 6,700 | 7,400 | | 7,800 |
| TY Imp. from U.S. | 766 | 763 | 0 | 700 | | 700 |
| Total Supply | 7,869 | 7,869 | 8,320 | 9,020 | | 9,935 |
| MY Exports | 214 | 214 | 225 | 235 | | 260 |
| TY Exports | 214 | 214 | 225 | 235 | | 260 |
| Feed and Residual | 135 | 135 | 150 | 150 | | 150 |
| FSI Consumption | 5,900 | 5,900 | 6,200 | 6,500 | | 7,150 |
| Total Consumption | 6,035 | 6,035 | 6,350 | 6,650 | | 7,300 |
| Ending Stocks | 1,620 | 1,620 | 1,745 | 2,135 | | 2,375 |
| Total Distribution | 7,869 | 7,869 | 8,320 | 9,020 | | 9,935 |
| Yield | 0. | 0. | 0. | 0. | | 0. |

Note: Figures in the "New Post" columns are not USDA Official figures.

PSD: CORN

| Corn<br>Indonesia | 2010/2011 | | 2011/2012 | | 2012/2013 | |
|---|---|---|---|---|---|---|
| | Market Year Begin: Oct 2010 | | Market Year Begin: Oct 2011 | | Market Year Begin: Oct 2012 | |
| | USDA Official | New Post | USDA Official | New Post | USDA Official | New Post |
| Area Harvested | 2,850 | 2,850 | 3,150 | 3,080 | | 3,150 |
| Beginning Stocks | 668 | 668 | 743 | 758 | | 780 |
| Production | 6,800 | 6,800 | 8,100 | 8,700 | | 8,900 |
| MY Imports | 2,500 | 3,300 | 1,500 | 2,000 | | 2,000 |
| TY Imports | 2,500 | 3,300 | 1,500 | 2,000 | | 2,000 |
| TY Imp. from U.S. | 485 | 485 | 0 | 90 | | 70 |
| Total Supply | 9,968 | 10,768 | 10,343 | 11,458 | | 11,680 |
| MY Exports | 25 | 10 | 25 | 28 | | 25 |
| TY Exports | 25 | 10 | 25 | 28 | | 25 |
| Feed and Residual | 4,800 | 5,600 | 5,000 | 6,150 | | 6,700 |
| FSI Consumption | 4,400 | 4,400 | 4,500 | 4,500 | | 4,500 |
| Total Consumption | 9,200 | 10,000 | 9,500 | 10,650 | | 11,200 |
| Ending Stocks | 743 | 758 | 818 | 780 | | 455 |
| Total Distribution | 9,968 | 10,768 | 10,343 | 11,458 | | 11,680 |
| Yield | 2. | 2.386 | 3. | 2.8247 | | 2.8254 |

Note: Figures in the “New Post” columns are not USDA Official figures.

PSD: RICE, MILLED

| Rice, Milled<br>Indonesia | 2010/2011 | | 2011/2012 | | 2012/2013 | |
|---|---|---|---|---|---|---|
| | Market Year Begin: Jan 2011 | | Market Year Begin: Jan 2012 | | Market Year Begin: Jan 2013 | |
| | USDA Official | New Post | USDA Official | New Post | USDA Official | New Post |
| Area Harvested | 12,075 | 12,075 | 12,150 | 12,100 | | 12,150 |
| Beginning Stocks | 6,577 | 6,577 | 5,852 | 6,175 | | 4,905 |
| Milled Production | 35,500 | 35,500 | 37,300 | 36,330 | | 36,900 |
| Rough Production | 56,349 | 56,349 | 58,740 | 57,213 | | 58,110 |
| Milling Rate (.9999) | 6,300 | 6,300 | 6,350 | 6,350 | | 6,350 |
| MY Imports | 2,775 | 3,098 | 1,000 | 1,950 | | 1,450 |
| TY Imports | 2,775 | 3,098 | 1,000 | 1,950 | | 1,400 |
| TY Imp. from U.S. | 0 | 0 | 0 | 0 | | 0 |
| Total Supply | 44,852 | 45,175 | 44,152 | 44,455 | | 43,255 |
| MY Exports | 0 | 0 | 0 | 0 | | 0 |
| TY Exports | 0 | 0 | 0 | 0 | | 0 |
| Consumption and Residual | 39,000 | 39,000 | 39,550 | 39,550 | | 40,000 |
| Ending Stocks | 5,852 | 6,175 | 4,602 | 4,905 | | 3,255 |
| Total Distribution | 44,852 | 45,175 | 44,152 | 44,455 | | 43,255 |
| Yield (Rough) | 5. | 4.6666 | 5. | 4.7283 | | 4.7827 |

Note: Figures in the “New Post” columns are not USDA Official figures.

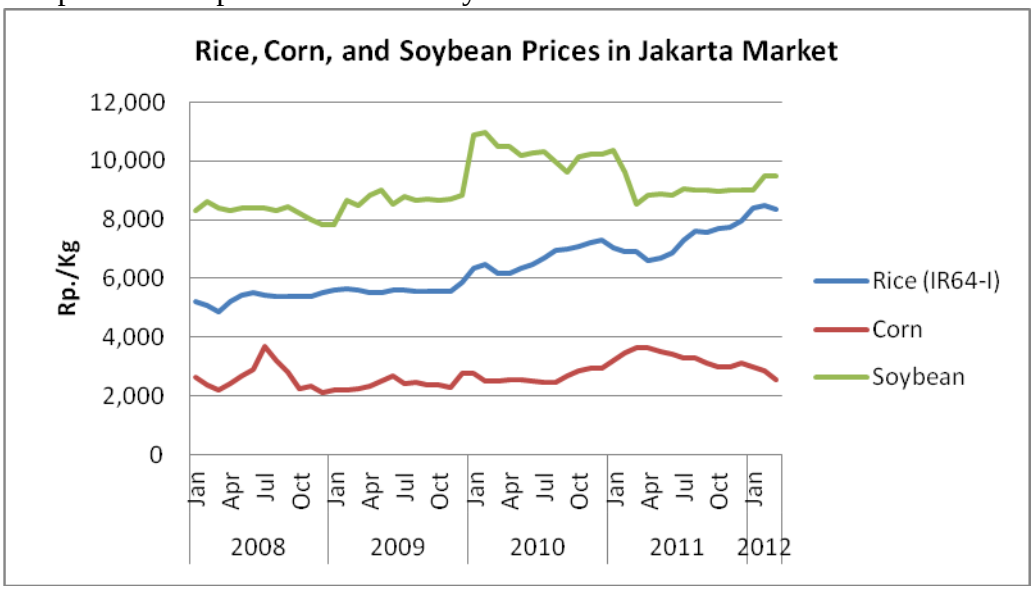
**Author Defined:**
Prices

**WHEAT**

The retail price of medium protein wheat flour in Jakarta market was reported at Rp. 7,700/kg ($839/MT) in March 2012. It has been stable at the level since December 2011.

## CORN

The following chart shows the movement of corn price paid by feed mills in the Jakarta market compared to the price of rice and soybean.




Source: Cipinang Rice Market, ASA, and Market Information Center (PIP).

In March 2012, the price of local corn is reportedly at Rp. 2,550/kg ($278/MT) from Rp. 3,100/kg ($338/MT) in December 2011, while the price of imported corn stands at Rp. 3,000/kg ($327/MT) compared to Rp. 3,027/kg ($330/MT) in December 2011. Despite the decline in the price of corn, the main component of feed, the price of feed remain stable at Rp. 5,300 – 5,500/kg ($ 578 to 600/MT).

## RICE

As a consequence of more harvest currently taking place and lower quality yields gained from the recent harvest, prices of wet paddy are reportedly declining. Currently, the price of wet paddy at farmer level in West Java ranges from Rp. 3,700/kg ($403/MT) to Rp. 3,600/kg ($392/MT) compared to Rp. 3,900/kg ($425/MT) to Rp. 4,100/kg ($447/MT) in March 2012. In Central Java as well as in East Java wet paddy prices range from Rp. 3,100 ($338/MT) to Rp. 3,200/kg ($349/MT).

Daily supply of rice from major rice producing areas in Java to Cipinang rice wholesale market in Jakarta is increasing to 3,238 MT in April 2012 from 3,110 MT in March 2010. The price of medium quality rice at Cipinang whole sale market is also declining to Rp. 8,368/kg ($912/MT) in March 2012 compared to the average price of Rp. 8,500/kg ($927/MT) in February 2012.

Rice Production: Area & Production by Region

Third Estimate Figures by the Government of Indonesia for 2011

## Harvested Area, Production, and Yield of Rice, 2011*

| Province | Harvested Area (Ha) | Production (MT) | Yield (Ton/Ha) |
|---|---|---|---|
| North Sumatera | 757,194 | 3,611,244 | 4.77 |
| South Sumatera | 772,803 | 3,332,799 | 4.31 |
| **Sub Total: Sumatera** | **3,418,891** | **15,654,258** | **4.58** |
| West Java | 1,959,686 | 11,467,516 | 5.85 |
| Central Java | 1,748,611 | 9,429,506 | 5.39 |
| East Java | 1,945,712 | 10,533,607 | 5.41 |
| **Sub Total: Java** | **6,192,549** | **34,148,340** | **5.51** |
| West Nusa Tenggara | 416,079 | 2,056,879 | 4.94 |
| **Sub Total: Bali & Nusa Tenggara** | **757,866** | **3,473,210** | **4.58** |
| West Kalimantan | 441,920 | 1,379,411 | 3.12 |
| South Kalimantan | 490,528 | 2,001,274 | 4.08 |
| **Sub Total: Kalimantan** | **1,289,917** | **4,557,268** | **3.53** |
| Central Sulawesi | 216,174 | 1,023,720 | 4.74 |
| South Sulawesi | 907,555 | 4,514,849 | 4.97 |
| **Sub Total: Sulawesi** | **1,491,480** | **7,267,672** | **4.87** |
| **Other Provinces/Islands** | **73,676** | **284,435** | **3.86** |
| **TOTAL INDONESIA** | **13,224,379** | **65,385,183** | **4.94** |

Source: BPS.

Note: * Third forecast figures.

Corn Production: Area & Production by Region

Third Estimate Figures by the Government of Indonesia for 2011

## Harvested Area, Production, and Yield of Corn, 2011*

| Province | Harvested Area (Ha) | Production (MT) | | Yield (MT/Ha) |
|---|---|---|---|---|
| | | (Wet Basis) | (Dry Basis) | |
| North Sumatera | 243,770 | 1,240,528 | 868,370 | 5.09 |
| Lampung | 391,637 | 1,859,897 | 1,301,928 | 4.75 |
| **Sub Total: Sumatera** | **826,226** | **3,993,410** | **2,795,387** | **4.83** |
| West Java | 151,046 | 962,136 | 673,495 | 6.37 |
| Central Java | 536,373 | 2,854,159 | 1,997,911 | 5.32 |
| East Java | 1,198,159 | 5,010,626 | 3,507,438 | 4.18 |
| **Sub Total: Java** | **1,960,782** | **9,134,003** | **6,393,802** | **4.66** |
| East Nusa Tenggara | 247,687 | 522,970 | 366,079 | 2.11 |
| **Sub Total: Bali & Nusa Tenggara** | **359,622** | **1,029,691** | **720,784** | **2.86** |
| West Kalimantan | 42,658 | 149,345 | 104,542 | 3.50 |
| South Kalimantan | 19,551 | 100,056 | 70,039 | 5.12 |
| **Sub Total: Kalimantan** | **68,577** | **266,371** | **186,460** | **3.88** |
| North Sulawesi | 119,872 | 437,879 | 306,515 | 3.65 |
| South Sulawesi | 287,369 | 1,371,512 | 960,058 | 4.77 |
| Gorontalo | 145,236 | 670,178 | 469,125 | 4.61 |
| **Sub Total: Sulawesi** | **632,175** | **2,757,907** | **1,930,535** | **4.36** |
| **Other Provinces/Islands** | **22,473** | **48,700** | **34,090** | **2.17** |
| **TOTAL INDONESIA** | **3,869,855** | **17,230,172** | **12,061,120** | **4.45** |

Source: BPS.

Note: *: Third forecast figures.

## INDONESIAN PADDY HARVESTED AREA, YIELD, AND PRODUCTION BY SUBROUND AND ECOSYSTEM

| Year | January - April | | | May - August | | | September - December | | | January- December | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Harvested Area (Ha) | Yield (Cwt/Ha) | Production (Ton) | Harvested Area (Ha) | Yield (Cwt/Ha) | Production (Ton) | Harvested Area (Ha) | Yield (Cwt/Ha) | Production (Ton) | Harvested Area (Ha) | Yield (Cwt/Ha) | Production (Ton) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Paddy Total** | | | | | | | | | | | | |
| 2011* | 6,172,453 | 49.65 | 30,648,787 | 4,293,771 | 48.93 | 21,009,810 | 2,758,155 | 49.77 | 13,726,586 | 13,224,379 | 49.44 | 65,385,183 |
| 2010 | 5,839,507 | 50.22 | 29,323,792 | 4,391,893 | 50.44 | 22,152,985 | 3,022,050 | 49.61 | 14,992,617 | 13,253,450 | 50.15 | 66,469,394 |
| 2009 | 5,996,700 | 49.45 | 29,505,561 | 4,429,632 | 50.71 | 22,463,966 | 2,487,244 | 49.97 | 12,429,363 | 12,883,576 | 49.99 | 64,398,890 |
| 2008 | 5,764,001 | 48.79 | 28,120,510 | 4,225,042 | 49.50 | 20,914,987 | 2,338,382 | 48.28 | 11,290,428 | 12,327,425 | 48.94 | 60,325,925 |
| 2007 | 4,893,539 | 45.59 | 22,311,774 | 4,612,715 | 47.88 | 22,083,944 | 2,641,383 | 48.31 | 12,761,717 | 12,147,637 | 47.05 | 57,157,435 |
| 2006 | 5,699,093 | 45.49 | 25,925,145 | 3,940,829 | 47.14 | 18,578,132 | 2,146,508 | 46.36 | 9,951,660 | 11,786,430 | 46.20 | 54,454,937 |
| 2005 | 5,509,146 | 45.06 | 24,826,193 | 3,962,301 | 46.69 | 18,501,256 | 2,367,613 | 45.72 | 10,823,648 | 11,839,060 | 45.74 | 54,151,097 |
| 2004 | 5,767,314 | 44.95 | 25,924,563 | 3,918,045 | 46.35 | 18,159,288 | 2,237,615 | 44.71 | 10,004,617 | 11,922,974 | 45.36 | 54,088,468 |
| 2003 | 5,226,999 | 44.77 | 23,403,773 | 4,029,982 | 46.19 | 18,616,453 | 2,231,053 | 45.35 | 10,117,378 | 11,488,034 | 45.38 | 52,137,604 |
| **Irrigated Paddy** | | | | | | | | | | | | |
| 2011* | 5,300,954 | 52.64 | 27,904,082 | 4,163,225 | 49.51 | 20,613,266 | 2,712,086 | 50.14 | 13,599,299 | 12,176,265 | 51.01 | 62,116,647 |
| 2010 | 4,888,707 | 54.02 | 26,409,866 | 4,266,921 | 51.05 | 21,781,438 | 2,963,151 | 50.04 | 14,826,812 | 12,118,779 | 52.00 | 63,018,116 |
| 2009 | 5,049,266 | 52.97 | 26,743,958 | 4,310,919 | 51.35 | 22,138,059 | 2,436,893 | 50.43 | 12,289,206 | 11,797,078 | 51.85 | 61,171,223 |
| 2008 | 4,859,831 | 52.26 | 25,399,391 | 4,095,481 | 50.23 | 20,571,672 | 2,302,441 | 48.64 | 11,198,708 | 11,257,753 | 50.78 | 57,169,771 |
| 2007 | 4,006,974 | 49.75 | 19,935,026 | 4,434,899 | 48.73 | 21,610,491 | 2,599,352 | 48.68 | 12,654,176 | 11,041,225 | 49.09 | 54,199,693 |
| 2006 | 4,752,971 | 49.32 | 23,441,025 | 3,848,472 | 47.67 | 18,345,774 | 2,111,571 | 46.70 | 9,860,691 | 10,713,014 | 48.21 | 51,647,490 |
| 2005 | 4,551,398 | 49.12 | 22,358,002 | 3,859,284 | 47.28 | 18,248,187 | 2,322,894 | 46.11 | 10,711,569 | 10,733,576 | 47.81 | 51,317,758 |
| 2004 | 4,790,696 | 48.85 | 23,403,570 | 3,832,629 | 46.83 | 17,948,161 | 2,176,147 | 45.30 | 9,857,702 | 10,799,472 | 47.42 | 51,209,433 |
| 2003 | 4,319,288 | 48.82 | 21,087,599 | 3,913,490 | 46.84 | 18,332,466 | 2,161,738 | 46.07 | 9,958,061 | 10,394,516 | 47.50 | 49,378,126 |
| **Rainfed Paddy** | | | | | | | | | | | | |
| 2011* | 871,499 | 31.49 | 2,744,705 | 130,546 | 30.38 | 396,544 | 46,069 | 27.63 | 127,287 | 1,048,114 | 31.18 | 3,268,536 |
| 2010 | 950,800 | 30.65 | 2,913,926 | 124,972 | 29.73 | 371,547 | 58,599 | 28.15 | 165,805 | 1,134,671 | 30.42 | 3,451,278 |
| 2009 | 917,343 | 30.10 | 2,761,603 | 118,713 | 27.45 | 325,907 | 50,351 | 27.84 | 140,157 | 1,086,498 | 29.71 | 3,227,667 |
| 2008 | 904,170 | 30.10 | 2,721,119 | 129,561 | 26.50 | 343,315 | 35,941 | 25.52 | 91,720 | 1,069,672 | 29.51 | 3,156,154 |
| 2007 | 886,565 | 26.81 | 2,376,748 | 177,816 | 26.63 | 473,453 | 42,031 | 25.59 | 107,541 | 1,106,412 | 26.73 | 2,957,742 |
| 2006 | 946,122 | 26.26 | 2,484,120 | 92,357 | 25.16 | 232,358 | 34,937 | 26.04 | 90,969 | 10,731,416 | 26.15 | 2,807,447 |
| 2005 | 957,748 | 25.77 | 2,468,191 | 103,017 | 24.57 | 253,069 | 44,719 | 25.06 | 112,079 | 1,105,484 | 25.63 | 2,833,339 |
| 2004 | 976,618 | 25.81 | 2,520,993 | 85,416 | 24.72 | 211,127 | 61,648 | 23.90 | 146,915 | 1,123,502 | 25.63 | 2,879,035 |
| 2003 | 907,711 | 25.52 | 2,316,174 | 116,492 | 24.38 | 283,987 | 69,315 | 22.98 | 159,317 | 1,093,518 | 25.23 | 2,759,478 |

Source: Indonesian Statistics Agency (BPS)

Note:

*: Third forecast

**Rainfall Pattern at Selected Station in Rice/Corn Producing Areas**
**(in millimeters, except where stated)**

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **JATIWANGI (WEST JAVA)** | | | | | | | | | | | | |
| | **Jan** | **Feb** | **Mar** | **Apr** | **May** | **Jun** | **Jul** | **Aug** | **Sep** | **Oct** | **Nov** | **Dec** |
| 2007 | 405 | 438 | 209 | 315 | 62 | 77 | 6 | 85 | 1 | 20 | 216 | 190 |
| 2008 | 651 | 208 | 436 | 160 | 83 | 32 | 0 | 4 | 1 | 44 | 528 | 493 |
| 2009 | 231 | 208 | 279 | 211 | 57 | n/a | 0 | 0 | 1 | 53 | 398 | 191 |
| 2010 | 231 | 332 | 492 | 278 | 385 | 161 | n/a | 112 | 216 | 195 | 287 | 261 |
| 2011 | 23 | 176 | 482 | 558 | 149 | 98 | 22 | 0 | 0 | n/a | 29 | 290 |
| **TEGAL (CENTRAL JAVA)** | | | | | | | | | | | | |
| | **Jan** | **Feb** | **Mar** | **Apr** | **May** | **Jun** | **Jul** | **Aug** | **Sep** | **Oct** | **Nov** | **Dec** |
| 2007 | 118 | 276 | 99 | 154 | 131 | 137 | 32 | 4 | 0 | 17 | 153 | 437 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2008 | 229 | 169 | 295 | 277 | 19 | 85 | 21 | 35 | 2 | 74 | 115 | 259 |
| 2009 | 140 | 169 | 112 | 60 | 161 | n/a | 0 | 1 | 20 | 8 | 92 | 57 |
| 2010 | 122 | 242 | 152 | 263 | 200 | 193 | n/a | 121 | 143 | 64 | 159 | 214 |
| 2011 | 82 | 372 | 217 | 105 | 138 | 10 | 69 | 0 | 4 | n/a | 37 | 128 |
| **SURABAYA (EAST JAVA)** | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | **Jan** | **Feb** | **Mar** | **Apr** | **May** | **Jun** | **Jul** | **Aug** | **Sep** | **Oct** | **Nov** | **Dec** |
| 2007 | 108 | 494 | 293 | 193 | 40 | 75 | 4 | 0 | 0 | 12 | 62 | 173 |
| 2008 | 250 | 124 | 144 | 132 | 22 | 17 | 0 | 0 | 0 | 59 | 180 | 269 |
| 2009 | 357 | 124 | 204 | 164 | 256 | n/a | 0 | 0 | 0 | 0 | 25 | 166 |
| 2010 | 507 | 368 | 295 | 226 | 354 | 90 | n/a | 14 | 129 | 246 | 113 | 303 |
| 2011 | 148 | 194 | 401 | 642 | 158 | 32 | 31 | 0 | 0 | n/a | 5 | 243 |
| **DENPASAR (BALI)** | | | | | | | | | | | | |
| | **Jan** | **Feb** | **Mar** | **Apr** | **May** | **Jun** | **Jul** | **Aug** | **Sep** | **Oct** | **Nov** | **Dec** |
| 2007 | 209 | 165 | 354 | 310 | 18 | 22 | 2 | 40 | 1 | 78 | 76 | 567 |
| 2008 | 419 | 403 | 246 | 93 | 65 | 25 | 8 | 1 | 6 | 121 | 67 | 268 |
| 2009 | 442 | 403 | 172 | 59 | 49 | n/a | 23 | 1 | 32 | 14 | 28 | 257 |
| 2010 | 199 | 177 | 76 | 327 | 56 | 21 | n/a | 64 | 286 | 214 | 146 | 256 |
| 2011 | 277 | 286 | 277 | 283 | 118 | 15 | 16 | 0 | 0 | n/a | 8 | 128 |
| **UJUNG PANDANG (SOUTH SULAWESI)** | | | | | | | | | | | | |
| | **Jan** | **Feb** | **Mar** | **Apr** | **May** | **Jun** | **Jul** | **Aug** | **Sep** | **Oct** | **Nov** | **Dec** |
| 2007 | 821 | 618 | 49 | 138 | 107 | 124 | 9 | 18 | 26 | 28 | 166 | 854 |
| 2008 | 507 | 762 | 255 | 100 | 15 | 78 | 27 | 5 | 6 | 83 | 320 | 481 |
| 2009 | 617 | 762 | 196 | 158 | 132 | n/a | 32 | 1 | 81 | 32 | 151 | 370 |
| 2010 | 620 | 409 | 156 | 121 | 311 | 238 | n/a | 93 | 315 | 185 | 223 | 693 |
| 2011 | 481 | 469 | 448 | 228 | 0 | 20 | 1 | 0 | 0 | n/a | 121 | 310 |
| **LAMPUNG** | | | | | | | | | | | | |
| | **Jan** | **Feb** | **Mar** | **Apr** | **May** | **Jun** | **Jul** | **Aug** | **Sep** | **Oct** | **Nov** | **Dec** |
| 2007 | 358 | 59 | 59 | 305 | - | 122 | 86 | 20 | 18 | 26 | 73 | 431 |
| 2008 | 198 | 126 | 199 | 171 | 38 | 35 | 26 | 109 | 27 | 147 | 174 | 313 |
| 2009 | 233 | 126 | 218 | 143 | 94 | n/a | 15 | 58 | 21 | 152 | 176 | 102 |
| 2010 | 137 | 231 | 270 | 91 | 84 | 24 | n/a | 72 | 99 | 176 | 204 | 260 |
| 2011 | 188 | 66 | 120 | 106 | 0 | 23 | 70 | 0 | 1 | n/a | 116 | 137 |

Source: Indonesian Meteorology, Geophysics, and Climatology Agency (BMKG).

Note: Exchange rate is Rp. 9,173/USD 1, as of April 12, 2012.