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## Changes of Agricultural Materials' Price and its Impact on Agricultural Production and Farmers' Income

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**Abstract:** As the Central Committee put forward a series of favorable policies to improve agriculture, the efforts to supporting agriculture has been increased and the enthusiasm of farmers to engage in agricultural production has also been increased. But the rise of agricultural materials' prices partially offset the income of farmers. The paper analyzed the causes of the rising prices of agricultural materials and proposed the measures of agricultural production in the context of agricultural prices rising.

**Key words:** Agricultural materials prices, agricultural production, measures

### INTRODUCTION

Agricultural materials are an essential basis for agricultural production which are an important part of agricultural product cost and the change of the price directly affects the agricultural product prices, ultimately affects the income of the farmers and consumer price.

### ANALYSIS OF THE STATUS OF AGRICULTURAL MATERIALS' PRICE IN 2012

According to data released by the State Statistical Bureau, the price of agricultural materials has been continuing to rise throughout the nation since the beginning of this year. From May to August, the price of agricultural materials had risen to 10.2% compared to the same period of last year. Then, as for the monthly price, the price of agricultural materials showed a trend of gradual increasing. In May to August, compared to agricultural materials prices of the previous month, agricultural materials price rose 0.2, 0.9, 2.2 and 1.0%, respectively in each month. According to the survey in October, the top ten categories of agricultural materials' prices all rose. Agricultural materials whose price increased largely mainly include product livestock, fertilizer, agricultural seed, agricultural oil and pesticide with the increase up to 23.7, 17.7, 16.5, 11.1 and 6.2%, respectively over the same period of last year. Yingtan city of Jiangxi province, from May to August, fertilizer prices rose, as shown in Table 1.

Seeds, pesticides, agricultural prices are on the rise. As shown in Table 2.

In other areas, such as in Yanshan County, fertilizer prices also rose in April, as shown in Table 4.

We take Yingtan City in Jiangxi Province as the example. In May to August, Urea made in Jiujiang was 1845 yuan ton<sup>-1</sup>, Canadian potash was 2065 yuan ton<sup>-1</sup>, ammonium bicarbonate was 630 yuan ton<sup>-1</sup> and phosphate fertilizer made in Yingtan was 380 yuan ton<sup>-1</sup>, rising 12.5, 21.9, 57.9 and 15.2, respectively compared with the same period last year. The price of seeds, pesticides and agricultural film was also on the rise. The prices of seed rice of Jinyou 402, You1-402 and Xiannong1 were 4.5 yuan per 500 g, 5 yuan per 500 g, 8 yuan per 500 g,

Table 1: Price of fertilizer in Yingtan city from May to August in 2012

Agricultural varieties	Unit price (ton)	Year-on-year growth (%)
Urea produced in Jiujiang	2055 yuan	12.5
Ammonium bicarbonate	680 yuan	21.9
Phosphate fertilizer produced in Yingtan	450 yuan	57.5

Table 2: Rice prices in Yingtan city :5-8 in 2012

Agricultural varieties	Unit price (per 500 g)	Year-on-year growth (%)
Jinyou402	5.5 yuan	80.0
You1-402	6 yuan	66.7
Xiannong No. 1	9 yuan	14.3

Table 3: Pesticide prices in Yingtan city in 5-8 month in 2012

Agricultural varieties	Unit price (kg <sup>-1</sup> )	Year-on-year growth (%)
Methamidophos	19 yuan	21.4
Omethoate	18 yuan	14.3

Table 4: Price of fertilizer in Qianshan County in April 2012

Agricultural varieties	Unit price (ton)	Year-on-year growth (%)
Urea	2045 yuan	16.3
The Canadian potash	2460 yuan	33.3
Phosphatic fertilizer	489 yuan	20.0

**Table 5: Agricultural price in Taihe County**

Agricultural varieties	Unit price	Year-on-year growth (%)
Urea produced in Jiujiang	2088 yuan (ton)	18.5
Canadian potash	2578 yuan (ton)	33.6
Pesticide dimethoate produced in Wuhan	19.4 (kg)	13.4
Xieyou 432	4.8y uan (500g)	31.2
You I1402	4.6 yuan (500g)	40.0

respectively, rising 80, 66.7, 14.3, respectively compared to the same period last year. The prices of pesticide methamidophos and omethoate were 17 and 16 yuan kg<sup>-1</sup>, respectively, rising 21.4 and 14.3%, respectively compared with the same period last year. It is not accidental case. The prices of urea, Canadian potash and phosphate were 1860, 2160 and 480 yuan ton<sup>-1</sup>, respectively, rising 16.3, 33.3 and 20.0%, respectively over the same period last year in Yanshan County in April. In Taihe County, the price of Jiujiang urea was 1938 yuan ton<sup>-1</sup> with a 18.5% year-on-year jump; the price of Canadian potash was 1438 yuan ton<sup>-1</sup> with a 43.9% year-on-year rise; the price of pesticide dimethoate (made in Wuhan) were 19.4 yuan kg<sup>-1</sup> with a rise of 13.4% and the prices of seed of Xieyou 432 and You I1402 were 4.2 and 3.8 yuan every 500 g, rising 31.2 and 40.0% over the same period last year in May to August.

Agricultural prices also continued to rise in Taihe County, as shown in Table 5.

### CAUSE OF THE RISING PRICE OF AGRICULTURAL MATERIALS

**A series of preferential agricultural policies issued by the central government greatly aroused the enthusiasm of farmers to grow grain which is bound to stimulate the consumption of agricultural products:**

The core spirit of Central Document No. 1 in 2010, the Central Economic Work Conference and the Central Rural Work Conference was, in accordance with the requirements of the total amount increasing continuously and the proportion improving steadily, that the investment in fixed assets of the national budget should highlight the key and optimize the structure in 2010, that is, the investment in rural livelihood projects and rural infrastructure construction should be further increased with the investment of 93.66 billion yuan on the “three rural”. Moreover, we should continue to improve the system of agricultural subsidies (Huang, 2012). Currently, China’s agricultural subsidy policies include direct subsidies to grain farmers, comprehensive agricultural subsidies, seed subsidies and farm machinery purchase subsidy, referred to as the “four subsidies”. As shown in Table 6.

**Table 6: Central agricultural subsidies in 2009**

Subsidy	Sum (yuan)
direct subsidies to grain farmers	19 billion
comprehensive agricultural subsidie	75.6 billion
farm machinery purchase subsidy	13 billion
seed subsidies	19.85 billion

In 2009, the central government allocated grain farmers direct subsidies to 19 billion yuan, comprehensive agricultural subsidies of 75.6 billion yuan, seed subsidy of 19.85 billion yuan, farm machinery purchase subsidy of 13 billion yuan which has played a positive role in mobilizing farmers’ enthusiasm to grow grain. The policy of Continue to raise lowest price of grain purchase is an important means of regulate the relationship between the domestic grain supply and demand, also is an effective policy of promote farmer sow corn. Since 2004, the state constantly improved the minimum grain purchase policy, increased the minimum purchase price of wheat and rice gradually, expand the scope of the acquisition and arrange for the time of acquisition reasonably. All of those promote the stability of the grain market, protect the interests of farmers and ensure the security of state grain.

### Price of international fertilizer is on the high side and prices of diammonium phosphate (DAP) and urea have increased very significantly:

The price of DAP of Port of Tampa in United States rose from \$ 266 ton<sup>-1</sup> in early January of this year to \$ 482 ton<sup>-1</sup> in the end of March with a 65% rise. While the price of urea of Gulf of Mexico in in United States rose from \$ 320 ton<sup>-1</sup> in early November last year to \$ 462 ton<sup>-1</sup> in the end of March this year with a rise as much as 65%. These promote the domestic fertilizer exports increased and the prices of fertilizer rose. The high price of the import of potash is one of the reasons. Now the countries which are rich potassium resource greatly increase the price of potassium, yet we can not see the possibility of the ease of the tense situation of the domestic potassium resources which will make the fertilizer prices difficult to decline in 2012. The rise in coal prices prompted the increase in the production cost of urea. This production cost push fertilizer price to rise and there no weakening trend in the short term (Huang *et al.*, 2012). By May 10, the offer of fertilizer have increased in many domestic areas (Liu, 2010), such as Jiangxi, Shandong, Hebei, Henan, Hunan and Hubei etc., where the offer of fertilizer rose up approximately 26 ton<sup>-1</sup> than the previous week. During this period, the price of coal rose, having a great stimulate effect to promote the price of fertilizer boosting. The reason is that the demand of downstream is up and the fertilizer supplier will be more powerful, in the short term. Coal price increase makes fertilizer seller have

grounds to raise prices. At present in the central plains the fertilizer market of the corn and rice had started. After the relief of drought in southwest, the amount of fertilizer also have increased in small and the current average market price is about 1600 yuan ton<sup>-1</sup>. To the Hubei region, for example, although the region haven't gone through drought, fertilizer suppliers in the surrounding arid provinces such as Yunnan and Guizhou diverted to deliver fertilizer to Hubei which led the market more concentrated and saturated and the plants burdened so that fertilizer prices in the first three months of this year has been suppressed. Therefore, during the peak season, if the coal prices rise, the fertilizer enterprise clearly hope the rise in price. The price of coal may be influenced by the rise of natural gas prices to continue to rise and this brings a new opportunity for the uplift of fertilizer price. Natural gas and coal are the raw materials of fertilizer products. The price of natural gas is expected to increase this year which will drive coal prices to continue to rise. Goldman in report pointed out that the price of natural gas is expected to increase by about 10% in the report June 2011. The increase of freight is another reason. Rail transport can only meet 38% of the transport demand. The rising price of international oil, diesel shortages and investigation of highway overload will soar transportation costs. This situation is also very difficult to have a big change in 2012.

**Enhancement of farmers' affordability of agricultural materials' price:** With a series of preferential agricultural policies, farmers' income has greatly increased in 2011. The increasing in revenue enables farmers to enhance the affordability of agricultural materials' prices which will play a support role on price to run high in the fertilizer market. The price of agricultural means of production is expected to rise slightly. With the national implementation of measures to increase revenue and reduce the burden on farmers, arouse farmers' enthusiasm for production. The demand for agricultural means of production will have a certain level of growth and the growth of demand for fertilizer, pesticides with high efficiency and low pollution, plastic sheeting and agricultural diesel and such like will be great.

**Agricultural materials management is not standard:** Since agricultural goods are hoarded in advance by some households in a large amount, these people have a great edge on price, that is, at market they can provides not only abundant goods but also low prices which results in an occupation of the mainstream market sale. In order to exclude other rivals to monopolize the market, some households collaborate together and would rather give up

some profits to achieve the purpose of occupying market sales. Some spread the rumors of price rising up to drive up the market price.

After the agricultural circulation system reform, business entity has diversified. Especially in the retail fields, contractor and self-employed households have accounted for the most. However, under the influence of ideology and management system, incomplete records is a common phenomenon and purchasing and selling with no invoice or irregular invoice brings some difficulties to the control of circulation rate and price check. At present the market operators of agricultural production means mainly are fertilizer manufacturers, supply and marketing cooperatives and individual householder (Liu *et al.*, 2012). The disorderly market competition has been further intensified. Some, under the name brand of "direct", subcontract agricultural operations to individuals directly and drive up prices to take advantage of the spring production season. At the same time, some individual householder undocumented participate in agricultural operations, adulterate the quality and give short measures, disrupting the normal order of market price and impairing the interests of farmers. In addition, price regulatory measures fatigue and the implement of the fertilizer guide price according to state regulations do not put in place. Both of the two reasons also promote the rise of market prices of agricultural materials.

#### **INFLUENCE OF THE RISE OF AGRICULTURAL MATERIALS PRICE ON AGRICULTURAL PRODUCTION AND FARMERS' INCOME**

**Reduce the farmers' enthusiasm to buy fertilizers, seeds, pesticides and other agricultural materials:** The income of the food rely on rational use of chemical fertilizers and pesticides and good varieties, while the rising prices of agricultural materials led farmers to reduce the use of chemical fertilizers or to use alternative fertilizers such as manure and green manure, to reduce the use of high-quality varieties (Liu, 2010b). Farmers' enthusiasm to buy fertilizer and good seeds is not high affecting the production of grain and livestock which will affect the income of farmers and the phenomenon of producing fake or shoddy goods in the agricultural materials market still happen from time to time. For rural areas, due to the particularity of natural factors, traffic and information are lag the geographical position is remote, together with the cultural quality of the farmers is not high, leading farmers' ability to distinguish fake and shoddy products is low (Zhao, 2006). In the rural market, fake and shoddy products rare small to all kinds of daily necessities, big to

seeds, fertilizers and pesticides. In addition, in rural market administration and law enforcement personnel are less and supervision is inadequate. Under the pressure of the rising prices agricultural materials, farmers are forced to buy some poor quality fertilizers, grain seeds, breeding stock and breeding birds, leading to the interests of farmers constantly be damaged.

**Rising prices of agricultural materials offset part of the income of farmers:**

The rise in the price of agricultural materials cause the farmers’ planting costs increased. According to the survey, the total amount of agricultural materials purchased by farmers has declined, while the expenditures increased. For farmers in the Yingtan City (Table 7, 8), the total expenditure for agricultural materials is expected to 1675.05 yuan per household, increasing 154.9 yuan and rising 10.2% than the same period last year of 1520.18 yuan. The total amount of agricultural materials is expected to 978.2 kg per household with a decrease of 55.8 kg and a drop of 5.40% compared to the same period last year of 1034 kg. The total expenditure for farmers in Taihe County buying agricultural materials is expected to 1069.3 yuan per household, 124.2 yuan more than last year and an increase of 13.1% (Table 9). Calculations on an acre of rice with two seasons throughout the year, it needs about 9.8 kg of seed and at current average price the price of seed will increase by 32.3 yuan. It needs pesticides approximately 8.2 kg, an increase of 16.4 yuan of pesticides’ price at current average price. It approximately required 14 kg of urea, 6 kg of potash and 7 kg of phosphate fertilizer and 19 kg of ammonium bicarbonate. Calculated at current fertilizer prices, fertilizer inputs will increase from 71.90 yuan to 88.58 yuan with an increase of 16.7 yuan. The costs of seeds, pesticides and fertilizers per acre will increase 65.4 yuan for the year. Therefore, the rising prices of agricultural materials offset, to some extent, offset the benefits brought by preferential policies to farmers such as the direct grain subsidies, agricultural tax exemption, farmers contract “zero” burden and other policies. The rising prices of agricultural materials also compress the rising food prices to farmers’ income, causing farmers to the shortage of funds which will directly affect farmers’ investment in grain and farmers’ income.

**Price of agricultural materials rise too fast which will reduce the quantity and quality of agricultural inputs and affect the income of farmers:**

In the condition that agricultural materials price continue its rapid growth in the future, many farmers will be a cautious attitude about the

Table 7: Total expenditure expected to buy agricultural material in Yingtan

Total expenditure In 2012	Total expenditure in 2011	Year-on-year growth (%)
1675.09 yuan	1520.18 yuan	10.2

Table 8: Total expected to buy agricultural material in Yingtan

Total in 2012	Total in 2012	Year-on-year decline (%)
Agricultural 978.2kg	1034 kg	5.4

Table 9: Total expected to buy agricultural material in Taihe

Total expenditure In 2012	Total expenditure In 2011	Year-on-year growth (%)
1069.3 yuan	1209.3 yuan	13.1

expenditure, because the total amount of net cash income of farmers a year is very limited (Liu, 2010a). If they put too much in agricultural production, the investment to other life aspects must be reduced. So many farmers, especially low-income farmers will buy agricultural products with low quality and low price or not to purchase agricultural products in order to reduce the cash expenditures. Some other farmers will hold out to look forward to the timing when the price of agricultural products grow no longer or appear to decline, so as to achieve the purpose of reducing expenditures. As a result, the overall investment in agriculture will decline in quality and quantity which is bound to affect the potential for agricultural development.

**COUNTERMEASURES TO IMPROVE AGRICULTURAL PRODUCTION AND FARMERS’ INCOME**

**First measure is positive publicity and to ensure that national, provincial (city) preferential agricultural policies are fully implemented:**

We should ensure that farmers engaged in grain and oil production to really get the benefits of the country. In particular, we should strengthen support to the Several Opinions on Strengthen the Construction of Agricultural Infrastructures and Further Promote the Agricultural Development and Farmers’ Income issued by the State Council and a series of preferential policies for the farmers such as the comprehensive subsidy policies on the new socialist countryside construction, food crops and oil crops production, subsidy policies on farmers purchasing farm machinery, major epidemic prevention subsidies, pigs subsidy policies, new farmer training, vocational training and sunshine training to win hearts and minds and to mobilize the enthusiasm of farmers to grow grain. Furthermore, we should effectively strengthen the supervision and management In the process of project implementation and pay attention to actual effect.

**Second is to perfect the price monitoring system and improve the efficiency and accuracy of price warning:**

The implementation of price monitoring and reporting system and the price situation analysis reporting system should be strict. Implement the cloth network monitoring to the household survey point. The costs to grow grain, prices and income should be estimated accurately. Master the first-hand materials and analyze the market price movements clearly, regularly and quickly. And typical cases should be reported timely. As to the problem coming from small clues of trends and tendencies which may cause abnormal market price fluctuations, we should warn and forecast these problems timely and early and propose appropriate corresponding countermeasures and suggestions to ease the market price fluctuations as much as possible and reduce losses.

**Third is to effectively regulate the charging management involving the “three rural”:**

Conduct a comprehensive investigation on the charges on the management of farm machinery, agricultural technology and agricultural machinery. On the basis of full investigation, clean up charges involving “three rural” seriously. Resolutely abolish the charges which should be canceled and reduce the charges which should be reduced and cancel and change the charge permit in the relevant departments and units timely. Besides, always regard the agriculture-related charges as the key content of examination. Furthermore, give full play to the role of the price complaints hotline for reporting and the management and supervision network of rural prices. For the complaints of farmers, it should be accepted first, handled with limited time and feedback timely. All of above are to effectively regulate the rural market prices and tariffs acts to reduce farmers’ burdens.

**Continue to increase financial investment in agriculture and rural development:**

To solve the problem of farmers’ income, we must adjust the national income distribution structure and the structure of fiscal expenditure, so the governments at all levels should arrange and implement the budget expenditure on agriculture and the rural in accordance with the law and establish and perfect the stable growth mechanism of the sound financial fund for agriculture (Liu, 2010). In accordance with the requirements of the unified planning, a clear division of labor and the overall arrangements, we should integrate the existing investment on agriculture, concentrate on financial resources, highlight the key and improve the efficiency of funds. We should use the tax, interest subsidies, grants and other economic levers actively to encourage and guide the social capital to invest in

agriculture and rural areas. All localities and departments should put the development of social undertakings in rural areas as the focus of its work. Implement the policies that the new undertaking expenditures on education, health, culture and other aspects mainly used for rural areas with conducting special inspection of the implementation every year in the future.

**We should intensify efforts to support agricultural education, research and technology promotion:**

In agricultural education, the government should solve the problem of rural teachers’ salaries by the central financial transfer payment and provincial financial aid and reduce the expenditure on basic education tuition and fees for the children of local farmers. At the same time, improve vocational technical quality of farmers and agricultural enterprise workers through the development of human capital in rural areas, so that they can learn and master the use of information, technology and management, becoming knowledge workers and managers. The relevant universities and colleges should establish a variety of functional training center to provide skills training for rural cadres, agricultural technicians, employees, respectively (Guo, 2010). In the promotion of scientific research and technology, the government should focus on enhancing the capacity of agricultural science and technology innovation, the reserve capacity and the transformation ability in our country, reform the agricultural science and technology system and increase the budget for agricultural research investment. Increase the breeding of superior crop varieties, especially the breeding of superior products with export advantages, such as vegetables, fruits, flowers and also strengthen the research and development of biotechnology and other high-tech. Advance arrangements should be put into the application of the technology which will go into operation in the future. The research must be uninterrupted, so that technological innovation will run a long history and we will always hold the necessary technical reserves. Deepen the reform of the agricultural science and technology system and accelerate the formation of the complementary advantages of agricultural technology popularization system with national promotion agencies and other forms of ownership promotion organizations developing together. Agricultural technology demonstration farm, the Science and Technology Park, leading enterprises and farmers’ professional cooperative organizations should lay an active role in the promotion of agricultural science and technology. Establish the new agricultural technology popularization service organizations which are compatible with the agricultural industry.

**We should vigorously develop the grain industry and improve the comprehensive benefits of grain production:**

We should consider the food production, conversion, processing, circulation and consumption as a complete industrial system and carry on a series of developmental and overall construction. Especially in major grain producing areas, they should make food industry bigger and stronger based on food advantage and transform the production advantages into industrial advantages and economic advantages (Chao, 2010). Through the development of high-quality special grain and the development of animal husbandry, to engage in value-added processing, improve the effectiveness of food and increase farmers' income. Finally, we should vigorously support the development of food processing, storage, transportation and distribution, extend food industry chain, improve the added value of food and enhance the market competitiveness of the food.

**Rural finance should intervene in food production, circulation and consumption areas effectively:**

Facing the new situation, the Agricultural Development Bank should further improve and strengthen the credit policy guidance, further develop the new policy orientation, strengthen macro-control capacity of the national food market to maintain national food security and protect the interests of farmers (Jin, 2011), thus push forward the market reform of the grain circulation system smoothly. First, we should perfect the food credit policy and define the key points. The loans which are necessary for the central grain and oil reserve should be supplied full and timely according to the plan and the implementation that acquisition, rotation, import and export plans of the central grain and oil reserves should be supported. The loans necessary for local grain and oil reserve should be supplied of funds full and timely on the premise of local government implement the related interest with fees and price subsidies. The second is to actively support the reform of grain enterprises and to improve financial services. Support enterprises through merger, restructuring and other ways to optimize the allocation of resources, expand the scale of operation, change their operational mechanism and improve market competitiveness. The third is to continue to open up new business areas. For the need for their own development, the Agricultural Development Bank may consider to invest the original acquisition of funds in agricultural development areas with a local finance guarantee, especially the industrialization of agriculture, high-tech agricultural development, the promotion of new agricultural products and agricultural modernization and some other fields. The Agricultural Bank of China should support to optimize the industrial structure, catch the strengths of regional resource, carry on overall agricultural development and cultivate the characteristic

agriculture and regional leading industry to procure its transition from dispersed to scale, from extensive management to intensive management. Rural credit cooperatives should actively play a role as the main force for supporting agriculture, improvement joint guarantee loans and small credit loans, enhance rural credit construction, enlarge the coverage of credit in order to fit to the farmers' financial need of planting structure adjustment.

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**REFERENCES**

- Chao, Q., 2010. The influence of price rise of the agricultural materials on agricultural production and countermeasures. *Guangxi Trop. Agric.*, 1: 40-46.
- Guo, S. L., 2010. Price rise of the agricultural materials is main reason for the rise in the cost of food. *J. Agric. Prod. Market Weekly*, 7: 30-35.
- Huang, W., X. Xu and Y. Wu, 2012. The conduction mechanism analysis between agricultural prices, food prices and the rural CPI - based on the agricultural industry chain perspective. *Tech. Econ.*, 31: 107-111.
- Huang, W. B., 2012. The causes and ripple effect of agricultural prices' change. *Fujian Agriculture and Forestry University*, pp: 23-34.
- Jin, S. M., 2011. Co-integration analysis of the agricultural price index and consumer price index. *Stat. Decision*, 7: 133-134.
- Liu, G., 2010a. Mr. Wen jiabao expressed in an hui that price rise of the agricultural materials will subsidies farmer. *J. Pesticide Market Inform.*, 9: 18-22.
- Liu, G. B., 2010b. The influences of the rise of agricultural materials' prices on the economic and social development in rural area. *Chinese Bus. Community*, 2: 20-21.
- Liu, H., Y. Huang, Y. Li and Y. Yu, 2012. Research on construction and application of agricultural risk knowledge based on ontology. *Int. J. Digital Content Technol. Appl.*, 6: 338-346.
- Liu, J., 2012. Trade complementarily analysis between Shandong province and agricultural trade partners. *Int. J. Adv. Comput. Technol.*, 4: 653-661.
- Liu, R., 2010. The price rise of agricultural materials in general in Inner Mongolia. *J. Agric. Prod. Market Weekly*, 13: 23-27.
- Zhao, Z. X., 2006. How to inhibit some agricultural prices from rising too fast-discussion on the Hainan agricultural production and price. *Qinghai Stat.*, 10: 30-36.