The Cost of Fertilizer Rising Due to Demand For Ethanol Production

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Inorganic fertilizers like urea, ammonium sulfate, and ammonium phosphates are the primary nutrient sources for golf and landscape maintenance. The cost of these fertilizers is influenced by many factors. Natural gas, used in the production on ammonia, is usually the primary driver. Lately though, another fuel has made a substantial impact. The government’s support and subsidy for domestically produced biofuels, primarily ethanol produced from corn, is having a huge impact on the availability and price for the fertilizer you will be using this season and perhaps, for years to come.

In the anticipation of several hundred more ethanol plants being completed in the near future, corn prices have nearly doubled from the traditional range of $2.00/bushel to nearly $4.00/bushel. The amount of corn planted is increasing dramatically as well. A USDA Forecast predicts 87 million acres of corn will be planted in 2007. This is an 11% increase (8.7 million acres) from 2006. U.S. nutrient consumption is expected to increase as well to 13 million tons of Nitrogen, 4.8 million tons of Phosphate and 5 million tons of Potash. This represents a 7-9% increase in total nutrient use over the 21 million tons consumed in FY05/06. So why should the golf and landscape industry be concerned about the agricultural forecast and acres of corn planted? Golf and Landscape represent less than 5% of the total U.S. fertilizer consumption but the

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price and availability of fertilizer used in our industry is tied closely to the cost of agricultural inputs. The U.S. market is expected to be about two million tons short of urea. Urea is the most widely used nitrogen source for turf. Whether it is a reacted product like Nutralene® or Nitroform®, a stabilized nitrogen product like Umaxx®, or coated products like Polyon® or Polymer Coated Sulfur Coated Urea, they all begin as Urea. Some are predicting not only higher prices, but serious shortages.

Fertilizer prices have not seen these kinds of increases since price controls were lifted in 1973. Combined with a brief grain shortage, prices rose significantly and then retreated almost as rapidly as production again overtook demand. When hurricane Katrina crippled a significant amount of the U.S. Natural Gas production it caused a sharp increase in the cost and considerably reduced domestic ammonia/urea production. Many ammonia/urea plants across the nation were idled or dismantled. Combine that with a limited physical infrastructure to import/deliver urea and ammonia to the major growing regions, you have a “perfect storm” for higher costs and probable shortage. Urea prices are approximately 50% more than a year ago and Ammonia has returned to the record levels of the Katrina effect of last year.

The other primary nutrients, phosphate and potash are increasing as well. Wholesale prices for DAP (di-ammonium phosphate) and MAP (mono-ammonium phosphate) are currently 27-44% over last year’s prices. Potash has gone up about 11% in the past 20 months. Not to be out done, micro-nutrients like iron, manganese, and zinc are also more expensive.

So what course of action makes sense under these circumstances? First of all plan your needs early and obtain your fertilizer ahead of your desired application date. “Get er done” sooner rather than later will ensure you compensate for availability challenges. Evaluate your program and use just what you need. Perhaps a straight nitrogen treatment in place of a complete N-P-K application will be sufficient and save some expense. Micro-nutrients are expensive so if you need them make sure they are in a form that does you some good. A blended fertilizer that contains 2% Iron usually means that 4% of the ton (80#) is iron. If you are applying 5# of that fertilizer to 1,000 sq. feet (220#/acre) you will be applying just 3.2 ounces (8.8#/acre) of iron pellets. It is virtually impossible to cover 1,000 sq. feet effectively with 3.2 ounces of iron pellets. In a homogeneous fertilizer with iron every pellet applied will contain iron providing uniform coverage. This dramatically increases your chances for an effective iron application.

Fertilizer is fortunately a small part of most golf or landscape maintenance company’s budgets. Labor, equipment, fuel and insurance are usually larger expense items. Another thing you can do to help minimize the effect of higher fertilizer costs is to buy better fertilizer. Higher quality fertilizer, that contains “slow release” nitrogen, usually last twice as long as cheaper versions. They should cost you less labor to maintain. This reduces three of your major expenses, labor, equipment, and fuel. An application plan will also help target usage and should result in better timed and hopefully fewer applications.

While the ethanol boom is good for America’s dependence on imported oil, it is presenting some serious challenges for turf managers and golf course superintendents. To cope with higher fertilizer costs and potential shortages make sure you have your fertilizer well in advance of when you need it and use better quality longer lasting fertilizer. Your customers, manager, or greens committee will appreciate it.

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