Price elasticity of demand

1. If the demand for corn increases due to its use as an alternative energy source, what will happen to the supply of corn's substitute such as soybean? To answer this, first we have to understand what determinants will shift demand and supply. There are five demand determinants, they are T-I-P-E-N. Taste of preference, income, price of complements and substitutes, expectation of consumer regarding future price and numbers of buyers in the market. And there are five supply determinants, they are P-R-E-S-T. Number of producers, resource price, business expectations, subsidies and taxes, and technology.

In this case the increase in demand for corn is the result of increase in number of buyers in corn market due to it’s use as an alternative energy source, since there are more buyers in the market which means more income too, therefore farmers will use more or all their farm land to produce corn and less or no farm land to produce soybeans. And this will result in a decrease in soybean supply due to less farm land for soybean production. The factor for this supply shift is because the number of producers decreased.

2. What will happen to the price of corn oil? If suppliers are producing corn for the production of energy that can only indicate the production of other corn products such as corn oil will decrease. So there is less corn to produce corn oil result in decrease in corn oil supply. When the production (supply) of other corn products decreases the price for those products such as corn oil will increase.

3. How does the price elasticity of demand for corn oil influence the quantity-demanded of corn oil and the Total Revenue earned by sellers of corn oil? As we all have emphasized, price and quantity demanded move in opposite directions along a demand curve, if the price of corn oil rises, quantity demanded falls. When the price of corn rises, consumers will substantially reduce consumption of the corn oil, if they perceive that close substitutes are readily available.

Naturally, consumers will be less responsive to corn oil price increase if they perceive that only poor substitutes are available. Therefore the availability of substitutes is most important determinant of demand of elasticity. The effect of change in corn oil price on total revenue is determined by the price elasticity of demand. A increase in corn oil price, by it’s self, would increase total revenue if the quantity sold remained constant, conversely, when the prices decrease, the decrease in price would decrease in total revenue, if the quantity sold remained constant. But when the price of corn oil changes, the quantity does not remain constant, the total revenue moves in opposite direction of the price. So a increase in price of corn oil lead to a decrease in demand of corn oil as the consumers switch from high priced corn oil to the cheaper substitutes therefore the total revenue decreases.