

Crop Budget Reviews

Brazil

In Brazil the soybean seed is often saved back and replanted without paying any royalty or patent fees because the government does not enforce patent rights. Companies such as Monsanto are trying to get this changed and are making some progress.

Fertilizer costs tend to be higher because the fertilizer has to be imported and trucked long distances. The soils also need large amounts of lime as the soil has very low pH.

Labor in Brazil is very inexpensive. Day workers can be hired for as little as three dollars per day. A family might make \$400 per month. Minimum wage is \$125 per week but many people make less than minimum wage. A skilled shop mechanic might make \$500 per month. A tractor driver after attending driving school would make even less working over forty hours per week.

Herbicide and insecticides tend to cost a lot less because of the availability of generic versions. Again, this goes back to a lack of enforcement of patent laws. Many chemicals cost half what they do here. However, they use more because of the insect and disease problems associated with warmer climates.

Brazilian farmers currently don't purchase crop insurance as they aren't faced with hail and weather patterns seem to be more stable than in the USA. There is significant discussion about the impact of global change and clearing trees in the Amazon region will have in the future.

The use of banks as sources of credit is highly discouraged. Banks may charge interest rates as high as 25%. Many of the farmers use a barter system based on soybeans. A farmer would deliver so many bushels of soybeans at harvest to pay for inputs that they bought from an input supplier. The system is so well established that land can actually be bought on contract with the contract payments made in bushels of soybeans. Perhaps this is one way to avoid the income tax laws in Brazil.

Machinery is readily available in Brazil. It can often be purchased for 25% less than the equivalent here in the USA or possibly an even less if it is manufactured in Brazil. The machinery tends to be smaller in size as the labor is inexpensive. The costs of repairs are also a lot less than in the USA. There are also large discounts for cash purchases. The larger farms tend to have well equipped shops that machine some of their own parts.

The land costs vary considerable across the country as the country is very large and has land in various stages of production. Land in the developed areas may sell for over a thousand dollars an acre if has had lots of fertilizer and lime applied. Typically these farms would also have a large amount of housing and grain handling facilities included in the price. In some areas it would also include irrigation equipment. In the undeveloped areas land can be purchased for as little as fifty dollars per acre. It will cost another one hundred and fifty dollars to clear it. Then you will need to apply fifty dollars worth of fertilizer and lime. It will take two or three years from the start to get a crop. Overall land costs are much cheaper than in the USA.

Soybean and other commodity prices will be lower due to the large freight costs currently associated with hauling the product out of the country. You are hauling it the equivalent distance of from Iowa to Denver or Washington, DC. Freight rates can run over \$1.30 a bushel because of the distance to a port. In the peak season there may also be dock strikes and heavy traffic that increases costs even more. Brazil is looking at new opportunities to reduce freight such as going west through Columbia or partnering with the Chinese to build new railroads and ports in Brazil.

China

China has the need to increase food production to meet its every growing population. With a population over 1.25 billion people it will need to push to maintain it's food production while dealing with issues like urban sprawl.

Seed costs in China are high to cover the costs of research and development and to provide money for new research. Seed costs may be coming down as new companies are looking to do business in China if issues surrounding patent rights can be worked out.

Fertilizer is very expensive in China and the costs of trucking are high. China makes excellent use of its organic fertilizer because commercial fertilizer is costly.

A big part of the current agricultural policy in China is the desire to have high labor requirements to keep as many people employed as possible. This has resulted in low wages for the rural farmers. Recent indications are that China may adopt newer technology to try to increase yields. The labor costs may seem high but a typical Chinese farm may be three acres in size so you have to have a large labor cost if all of your income comes from only three acres.

Herbicide and insecticide costs tend to run high. If you have rice in the crop rotation you have a lot of weed pressure in the following years. The insect, bacteria and fungus problems are also a major issue. This is becoming increasing true around the rest of the world as well.

There is very little credit available. That makes it difficult to borrow the money needed for fertilizer and other inputs. There isn't any government subsidized crop insurance as there is here in the USA.

The Chinese use very little equipment in many of the regions. The water buffalo may be the main source of power. Often they would use a small irrigation pump to move water. By and large equipment costs are very minimal.

The land is owned by the government. The land is leased out under a very complicated and often politically motivated arrangement. The farmers pay a series of different types of taxes that form the "rent" for the land. Many of the farms are set up as "township" farms which have production quotas and government set selling prices for the commodities.

United States

As much as ninety percent of the soybean seed in the USA is "Roundup Ready" herbicide tolerant seed. This technology is very costly and enforcement is rigorously protected under patent laws by the seed industry. These costs are not expected to change anytime soon. There is concern about the lack of growth in yields overall in soybean production. Corn yields continue to climb while soybean yields seem to have peaked out.

Farmers in the Midwest typically apply enough fertilizer to the corn crop to fertilize both a crop of corn and soybeans as soybeans are usually grown in rotation with corn. Fertilizer costs are tied closely to energy costs as natural gas is used in manufacturing much of the nitrogen fertilizers. Use of organic manure is becoming more important in saving fertilizer costs.

Currently most of the labor on farms involves family members. This is changing as farms become larger. A long range typical return to labor on a Midwestern farm would be around \$20 per acre. If you were farming 1,600 acres you would expect to have a return to labor of \$32,000. In recent years soybeans have made it difficult to achieve this return while corn has generated larger returns. This has led to a slight increase in the percentage of corn acres as compared to soybean acres.

Herbicide costs for soybeans have remained fairly low due to the use of Round Up technology. The cost of Round Up has actually dropped in recent years. In the past very few insecticides were used in soybean production. If some of the recent insect problems continue the budget will need to be revised up to show higher chemical costs.

Interest costs are highly variable from one individual operation to another. In this budget we have estimated that interest was paid on the operating inputs and half of the rent cost for eight months. Many of the operations would not borrow any operating money at all while others might borrow a hundred percent.

Machinery costs vary significantly depending upon factors such as the size of the operation, the financial resources, the amount of growth anticipated in the future and the timeliness desired. Some of the most efficient operators may have machinery costs in the forty dollars per acre range. Others may have costs over eighty dollars per acre.

Producers with very high machinery costs may not be very competitive and eventually face major financial problems.

The rent number is a typical rent for Black Hawk County, Iowa. This number has been moving upward and could easily be twenty dollars or more per acre higher. These are some of the most productive soils in the world and producers with seed corn production contracts may pay as high as \$200 per acre in some situations.

Government program payments or subsidies can take on several different forms. As mentioned earlier USA farmers receive subsidies on the crop insurance that they may purchase. Most farms, however, get direct program subsidies based on the historical crop production for each farm tract. A typical direct subsidy for a Midwest soybean crop would be \$10 to \$15 per acre. The direct payments on corn are often twice this per acre. In addition, in years with very low prices soybean farmers could be eligible for an additional \$50 per acre or more in government subsidies. Currently many of these subsidy programs are being challenged by other countries through the World Trade Organization as being unfair to other countries. This will likely continue to be a highly disputed area into the future.