

Germinating ideas

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Welcome to this edition of Germinating Ideas. It will feature the agriculture and cotton industry in Brazil. This follows on from my five week visit as the team leader for a Rotary Group Study Exchange to Brazil with most of the time spent in the state of Minas Gerais. This state is a very large and diverse area famous for mining, agriculture and dairying. The city of Belo Horizonte, with almost 2.5 million people, is the state's capital. The city is around one hour's flight north of Sao Paulo.

BRAZIL

Brazil is a very large and diverse country that is blessed with large rivers, reliable rainfall, minerals and large areas of arable land. It is the fifth largest country in the world and Australia is the sixth. They have a population of almost 170 million people. The population of Sao Paulo, its largest city, is reported to be approaching 20 million people — almost the entire population of Australia.

The traffic problems in Sao Paulo are



A cotton crop with coffee growing in the background.

enormous and they now have a system of restricting vehicle use by the number plates on cars. They can only drive in peak times on certain days according to the last digits of their number plates.

Brazil is a developing country and is rapidly adopting new technologies in order to increase production of all its industrial, mining and agricultural sectors.

One Fiat automotive plant near Belo Horizonte employs over 20,000 people, works 24 hours a day and produces 2500 cars per day, every day of the week. All vehicles produced in Brazil can run on ethanol, gasoline or a combination of both. Ethanol, or Alcool is widely available all across the country.

Brazil has a large population of very poor people and also an increasing middle and upper class group. There are large socio economic gaps between the 'haves' and 'have nots'. This is reflected in security issues in most areas. Many homes have large walls around them topped by 10,000-volt electric fences.

AGRICULTURE

Brazil is rapidly becoming one of the world's great powerhouses in agriculture. The projected area of cotton planned for the coming season will be over one million hectares.



Celestino Zanella, Joao Zancanaro and Brad Anderson in a crop of feijao beans.

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An emerging corn crop being sprayed.

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The areas where cotton is grown feature a very reliable summer rainfall pattern, with rainfall of up to 2000 mm and more during the wet season. When the wet season finishes, dry weather allows for good picking conditions.

This abundant rainfall and the opportunity to grow many other crops is a key to their production ability. They are rapidly becoming very mechanised and with cheap labour they can grow enormous areas of many different crops. The average wage for farm workers is around 400 Reals per month. One Australian dollar is currently worth around 1.7 Reals. Many farm workers live on the farms while the owners live in the nearby towns.

Abundant water is a feature of many farms. Many are irrigated with centre pivots, a preferred method of irrigation where needed. Production of crops for food is a high priority as the main food staples are rice and feijao beans. Most meals are based on these two important commodities and vast amounts are consumed each day across the country. The national dish of Brazil is Feijoada — pork and black bean stew served with rice.

Beef production is also a major industry with Brazil the number one exporter in the world. Sugarcane is also grown over a large area and is the main crop used in ethanol production.

Cotton production

Cotton is planted in November and harvested in June in the area covered in this report. Due to the dry winter with virtually no rain, picking is not the normal rush as

it is in Australia. Most growers have their own pickers as contracting hasn't really taken off as yet. Cotton varieties grown are some of the older ones including Delta Opal and NuOpal. Ingard or Bollgard from Monsanto has had its first season there. Roundup Ready is not available as yet.

One farm visited had a best cotton yield of 8.24 bales per hectare grown on 81cm rows. This was under centre pivot irrigation. This farm grew over 700 hectares of cotton. There was one five row John Deere picker to pick the whole crop. Corn, soybeans, wheat, sorghum and feijao beans were also grown using 17 centre pivots near Unai in northern Minas Gerais, about 160 km from Brasilia.

Brazil has many cotton spinning mills where their cotton is spun into fabric. The taxes on imported goods are very high so domestic production is encouraged.

Large areas of native plants are maintained across many areas and there are large penalties for removing particular tree species. Many farmers seemed keen to maintain these natural areas for their environmental benefits. Many native animals exist in these areas including monkeys.

Other crops

Where there is favourable rainfall and large areas of land, many crops are grown.

Coffee, soybeans, corn, and feijao beans are major crops. Large investments are being made in infrastructure to handle increasing levels of production. Tropical fruits such as mangoes, papaya and graviola are also grown where the climate and rainfall is suitable. Big improvements are being made in crop nutrition through soil and plant testing. This is helping to increase yields.

IN SUMMARY

Brazil is a major producer of many agricultural commodities and is fast becoming a net exporter of many of these. Better infrastructure and financial systems are now being developed and when in place they are well situated to supply many products around the world. They are many years ahead of Australia with ethanol production due to wanting to be self sufficient with energy and the ability to grow large areas of crops like sugar cane.

Brazil is a fascinating country with many generous and friendly people.



Cotton is grown along with many other crops including coffee.