19. A Seed Tells a Farmer's Story

I am a small seed!

I am a small *bajra* seed. I have stayed in this beautiful wooden box since 1940. I want to tell you my story. This is a long story – but not mine alone. It is also the story of my farmer Damjibhai and his family. If I do not tell my story now, it might be too late!

I was born in Vangaam in Gujarat. That year there was a good *bajra* (millet) crop. There was a festive mood in the village. Our area was famous for its grain and vegetables. Each year Damjibhai kept aside some seeds from a good crop. This way our *bajra* family went on from one generation to another. Good seeds were stored in dried gourd (*lauki*) which was coated with mud. But that year Damjibhai himself made a strong wooden box to store us. He put in *neem* leaves to protect us from insects. He put different seeds in different compartments of the box. That was our beautiful home!



In those days Damjibhai and his cousins lived together. It was a large family. Everyone in the village helped each other, even in farming. When the crop was ready and harvested, everyone celebrated together. Oh! Those wonderful days! With big feasts and lots to eat!

In the winter, it would be time to enjoy the *undhiya* (a kind of stew). All the vegetables were put into a clay pot, along with fresh spices. The pot was sealed and kept between hot coals. The vegetables cooked slowly in this special cooker, on the fields.

Teacher's Note : Encourage children to talk about their experiences before beginning the chapter. Millet has been used only as an example. The children can be asked to narrate their own observations about changes in crops and vegetables that have taken place in their area.



Oh, I forgot, the pot was placed upside down! That is why the dish was called *undhiya* or "upside down" in Gujarati. *Undhiya* would be eaten with *bajra rotis*, freshly cooked on the *chulha*. Oh, what an earthy delicious flavour! Along with that, home-made butter, curd and buttermilk was served.

Farmers would grow many different kinds of crops – grains and vegetables – according to the season. The farmers kept enough for their needs and sold the rest to shopkeepers from the city. Some farmers also grew cotton. At home, family members spun cotton on a *charkha* (spinning wheel) to make cloth.

Tell

- Are *rotis* made in your home? From which grains are they made?
- Have you eaten *roti* made from *bajra* or *jowar*? Did you like these?

Find out and write

- In your house what is done to protect grains and pulses from insects?
- Which are the different festivals related to farming, celebrated in different seasons? Find out more about any one such festival and write in your notebook –

The name of the festival, in which season is it celebrated, in which states of India, what special foods are made, is it celebrated only at home with the family, or together with many people.

- Talk to the elders in your family and find out if there were some special foods cooked earlier that are not cooked any more?

- Find out about the crops – cereals, vegetables, pulses – that are grown in your area. Of those, is there anything that is famous across the country?



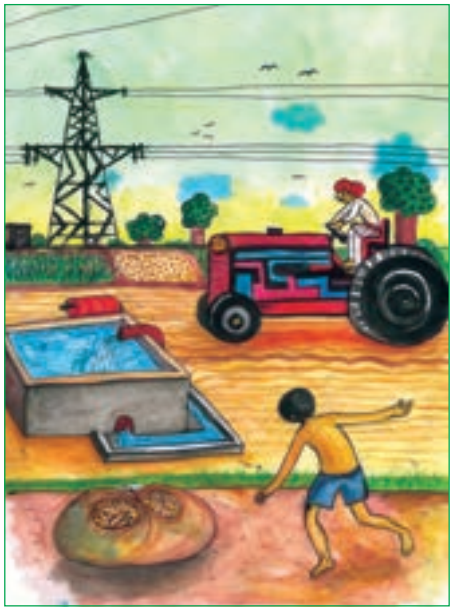
Can you recognise these grains?

When times changed

Over the years, many changes took place in the village. Some places could get water from the canal. They said the canal brought water from far away – where a dam had been built on a big river. Then electricity came. Switch on the button and there was light! People found that only one or two crops, like wheat and cotton, got better prices in the market. So most farmers began to grow only these. Soon we – old friends *bajra* and *jowar*, and also vegetables – were forgotten and dismissed, even from Damjibhai's fields! Farmers even began to buy seeds from the market. People said they were new kinds of seeds. So farmers did not need to store seeds from the old crop.

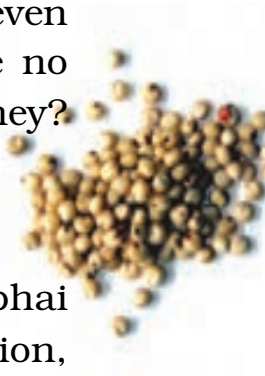
Now people in the village cooked and ate together only on very special days. As they ate, they would remember how tasty the food used to be in the past – fresh from the fields. When the seeds have changed, how could food ever taste the same!

Damjibhai was getting old. His son Hasmukh looked after the fields and the family. Hasmukh was making a lot of money from farming. He rebuilt the old house. He brought new machines for farming. He used an electric motor to pump water. He bought a motorcycle to go to the city easily and also a tractor to plough the field. The tractor could do in a day, what the bullocks would take many days to do.



Hasmukh would say, "Now we are farming wisely. We grow only what we can sell in the market at a good price. With profits from our fields we can improve our life. We can make progress."

Lying forgotten in the wooden box, I and the other seeds had our doubts. Is all this really progress? There is no longer any need for seeds like us, and animals like the bullocks. After the tractor has come, even people who worked on the fields, are no longer needed. How will they earn money? What will they live on?





Discuss

- The *bajra* seed saw differences in the way Damjibhai and Hasmukh did farming (for example, in irrigation, ploughing, etc). What were these differences?
- Hasmukh said, "With profits from our fields, we can progress." What is your understanding of 'progress'?



Write

- What kind of progress would you like to see in your area?

More and more expenses

The next twenty years saw even more changes. Without cows and buffaloes, there was no cow dung, to be used in the fields as fertilizer. Hasmukh had to buy expensive fertilizer. The new kinds of seeds were such that the crops were easily affected by harmful insects. Medicines had to be sprayed on the crops to keep away

Teacher's Note : Use children's experiences to discuss the kinds of changes which have taken place in agricultural practices over the years and the possible reasons for that. Newspaper reports should also be used.

the insects. Oh, what a bad smell these had, and how expensive they were!



The canal water was not enough for the new crops. All the farmers used pumps to lift water from deep under the ground. To meet all these expenses, loans had to be taken from the bank. Whatever little profit was made, was used to repay the loan.

But there was little profit! Everyone was growing cotton, so the cotton prices were not as high as before. The soil itself was no longer the same. Growing the same crop over and over, and using so many chemicals, had affected the soil so much that now nothing could grow well there. It was becoming difficult to earn a living by farming alone.

Hasmukh too changed with the times. He is often tense and angry most of the time. His educated son Paresh did not want to do farming. He now started work as a truck driver. After all, the bank loans still had to be repaid. Often Paresh doesn't come home for days. At times he is away for a week. Two days back when he came home, Paresh started looking for something. "*Ba*", he asked his mother, "Where is Dadaji's wooden seed box? It will be useful to keep the screws and tools for the truck." Now do you understand why I told you my story?



Discuss and think

- What can happen to Hasmukh's farm after some years?

Teacher's Note : It is important to give space to children to freely express what they understand by 'progress' and 'development'. Contemporary debates around the world can be linked to this discussion – for example, farmer's struggles in developing countries, efforts to save traditional seeds and medicines, and who has the right over all this knowledge – farmers or the big multinational companies?

- Damjibhai's son Hasmukh chose to become a farmer like his father. Hasmukh's son Paresh is not a farmer, but a truck driver. Why would he have done so?
- The seeds were not sure that what Hasmukh was talking about was really progress. What do you feel?
- Have there been any changes near your area, which may be difficult to call 'progress'? What changes are these? What are the different opinions about them?



Read the report from a newspaper and discuss it.

Tuesday, 18 December 2007, Andhra Pradesh

Farmers in Andhra Pradesh have been sent to jail for not being able to pay back their loans. They had suffered a big loss in farming. One of these farmers, Nallappa Reddy, had taken a bank loan of Rs. 24,000. To repay the loan, he had to take another loan from a private moneylender, at a very high rate of interest. Even after repaying Rs. 34,000 Reddy could not repay the entire loan. Reddy says, "The bank sends farmers to jail for not paying back small loans. But what about the big businessmen? They take loans of crores of rupees. Nothing happens to them when they do not return the money!"

Nallappa Reddy's story is shared by thousands of farmers in India who are suffering huge losses. The situation is so bad that many farmers see no way out of this except to commit suicide. According to government figures 1,50,000 farmers have died like this between 1997 and 2005. This number may be much higher...



Project Work

- What questions come to your mind about farmers and farming? Write some questions in your group and ask a farmer. For example, how many crops do they grow in a year? Which crop needs how much water?
- Visit a farm near your area. Observe and talk to the people there. Write a report.

Read the report on page 180 by a group of Class V students who went to visit Bhaskarbhai's farm.

Bhaskarbhai's Farm (Dehri village, Gujarat)

As we entered his farm, we were surprised. There were dead leaves, wild plants, and grass everywhere! Some of the tree branches seemed so dry, as if eaten by insects. At places we saw some plants with colourful leaves. Why these? Bhaskarbhai said they were croton plants which gave him a signal when the soil became dry. We were surprised! How? He explained that the roots of the croton do not go deep in the ground. So when the top layer of the soil becomes dry, the croton leaves bend and become limp. This signal tells Bhaskarbhai which part of his farm needs to be watered.

We found the soil soft and crumbly. We could see tall coconut trees, full of fresh coconuts. We thought he must be using some special fertilisers. Bhaskarbhai said he does not buy fertilisers made in factories. His soil is fertile because of all the dried leaves which slowly rot and mix with it. He dug the soil a little and told us to look. We saw thousands of earthworms! "These are my soil's best friends", he said. The earthworms soften the soil as they keep digging underneath to make tunnels. This way air and water can easily get into the soil. The earthworms also eat the dead leaves and plants, and their droppings fertilise the soil.

Pravin told us about his uncle in the city, who has dug a pit in his garden. He puts dried leaves in the pit, along with all the kitchen waste – peels of vegetables and fruits, and leftover food. He also has earthworms in the pit. They turn the waste into compost (a natural fertiliser). So his uncle gets good fertiliser without spending extra money.

We all had some fresh coconuts from the farm. They were really tasty! We also learnt so much about a new way of farming!

Group members : Praful, Hansa, Krutika, Chakki, Praveen, Class–5C



Journey of a *bajra* seed–from a field to a plate

What can you see in each picture on the next page?

In picture 2 you can see the *bajra* cobs in the mortar (*okhli*, used for crushing). The cobs are crushed with a pestle (*moosli*) and the seeds are separated from the cob. You can see the separated seeds in picture 3. Now this work is also done by big machines, like threshers. We call both these as different 'technologies' – using our hands or big machines – to crush the seeds.

- What technology could have been used to cut the stem in picture 1? What do you think is being done in the grinder (*chakki*) in picture 4? What ways (technologies) would have



been used to do the work shown in picture 5 and 6? You can see that the dough is ready in picture 6. When do you think a sieve (*chhalni*) would have been used? Discuss each step in detail, in **any language** you wish to use.

Rainy I A Murkery



Milamber





Claud Rinolt







Aparna







What we have learnt



- There have been many changes over time, in our food. What can this mean? Use the seed story and what you know from your elders to explain.
- What would happen if all the farmers were to use only one kind of seed and grow only one kind of crop?

Teacher's Note : We often limit our understanding of the word 'technology' to mean only big machines and instruments. A process or method is also a 'technology', for which we might normally use the word technique. For example, we could discuss how making dough from dry *atta* (flour) is also a 'technology', a special process. Straining the flour, pouring water slowly while kneading (you will surely appreciate this, if you have made a mess by putting too much water!), bringing it to the desired consistency, and at the end collecting the dough into one big lump - all these might be difficult to describe in words but are important to understand as processes. Encourage children to speak in their home language; do not expect them to do it in English.