

## How different Send a Cow methods and animals benefit African farmers...

And how you can share these with pupils to grow in their global perspective.

Most rural families in east Africa grow their own food to survive on small plots of land. In fact, about 80% of people could be described as 'farmers' as they rely on their land for most of their food and often keep small numbers of livestock if they can afford it. Plots sizes typically range from 1 acre to 5 acres, limiting what can be grown and the number of animals that can be kept - usually including a couple of local cows, some chickens and perhaps a number of goats, but in many cases would not include livestock at all. Most of the farming work is carried out by women, who work at digging, collecting water and looking after plants and livestock, often with the help of children and sometimes men, who might be involved in the heavier manual work. As Send a Cow not only works with groups of families, but also widows and orphan headed households, the members will work together and support each other.

### Cows



- Top Quality cows give 15 litres of milk per day compared to 1-3 litres per day of traditional cows. This is enough milk to supplement the whole family's nutritional needs.
- The surplus milk is sold to buy other non farm essentials.
- Cow dung is composited for manure which when used on the farm improves the overall crop yield to three times more than regular yield.
- Better for the environment. Not only is use of compost on farms cheaper but it is less harmful to the environment compared to oil based chemical fertilisers.
- An extra family member! Cows are important to rural families and are considered part of the family.
- Total transformation for the family; more and better quality food translates to healthier and more stable families.

### Draft oxen (only in Northern Uganda)

- Make ploughing much easier and efficient. Soils in Northern Uganda are of much poorer quality as conditions are generally dry and difficult to cultivate with human labour.
- While oxen plough, they fertilise the soil with their dung.
- Provide extra income for the family as they can be hired



out to other farmers once the farmer has finished work on his/her own farms.

**Where tractors are used for ploughing, the point can be made that doing it all by hand can be back-breaking for a whole group of Ugandan farmers, whereas oxen make the job much faster.**

### Goats



- These are very helpful on a rural farm as they eat all the scrap food like banana peels, bean stalks etc that people don't normally eat. They then turn these into more milk, rich dung for manure and those bred for meat give high quality meat.
- Have low maintenance compared to cows and are a valuable source of a rich diet and manure for families that have much smaller plots of land.
- Easier for orphaned families headed by children to care for.
- Can also translate to quick income as they can be easily sold at a market giving the family additional money for other essential needs like medicine, and school costs.

**Children could learn the practical uses of goats in Uganda. We have lots of pictures of goat shelters, should you wish to make one!**

### Chickens



- Great for families with small pieces of land
- A few of these make a big difference as they can be bred to become a big flock in a short time.
- They lay eggs throughout the year and these provide a rich source of much needed protein to children especially.
- Extra eggs can be sold at the market throughout the year providing a weekly income to the farmers.
- Chicken meat makes for a delicacy on special occasions like Christmas and when a family has special guests!
- Make great time keepers for waking up in the morning for children to work in the garden before going to school.

**You may like to make a small chicken shed or some of the pupils' parents may keep chickens allowing you to explain how they would really help a group of orphans living together. We also have lots of pictures of African chicken sheds.**

## Natural farming & gardening techniques

Send a Cow trains every rural family that we work with in natural farming methods that enable them to grow more food and benefit their land. The key principle is to integrate livestock and crops so nothing goes to waste – whether that’s dung, cow urine, vegetable peelings, or washing-up water. The training is also designed to combat environmental problems: soil that has become exhausted through overuse, lack of water and soil erosion. The methods make use of low-cost, locally available materials to make plant tea, natural pesticides and fertilisers, instead of relying on expensive oil-based solutions. The result is an increase in crop yields, often by three times, with more to eat and sell for the farmers - helping them out of poverty.

**There are many ways to link the natural farming techniques used in Uganda and on UK farms. There may be some similarities in making use of silage and manure, but differences in scale and how much locally available materials are used.**

### Keyhole Gardens



- Works like a well-stocked outdoor larder.
- These are heaps of soil based around a compost basket that continually feeds the garden with vital nutrients as it grows to produce lots of vegetables in a small area all year round.
- They’re a great way to get the most out of kitchen waste.
- Helps conserve water and helps to decrease erosion.

**Making a keyhole garden on your school will probably be the most effective building project that you can do with your pupils. You can use animal manure in its construction, local wood and stones and feed it with kitchen waste – highlighting many of the issues covered in Grow it Global.**

### Bag Gardens







- Bag gardens are multi-storey vegetable gardens grown round manure in a sack.
- It has a central column of stones that provides drainage and aeration.

**You can make these using used feed sacks or our kits and have them around the school site. They are simple to make and fairly easy to look after.**

### Pesticides/Plant tea

- The pesticide is made from animal urine mixed with chillies and ash which is then sprinkled onto crops to prevent destructive pests resulting into better yields.

	<ul style="list-style-type: none"> <li>Plant teas can be made from all sorts of plants such as comfrey, borage, nettles and cabbage leaves.</li> </ul> <p><b>An easy thing to make that will help any plants grow really well. It's also quite good fun with children as it's very smelly and old plastic bottles can be converted in sprinklers. 'How to' instructions will be provided.</b></p>
<p>Tip- taps</p> 	<ul style="list-style-type: none"> <li>These are home made hand washers that SAC staff teaches the families we work with to make from recycled materials.</li> <li>Improves general hygiene especially after gardening, looking after animals or going to the toilet.</li> </ul> <p><b>Another simple thing to make, these ingenious devices are very popular with children who can take on a project of making their own version of them at school. 'How to' instructions will be provided.</b></p>
<p>Fuel Efficient stoves</p> 	<ul style="list-style-type: none"> <li>Easy and cheap to make as is it is only the know-how and mud, the main material, which are needed.</li> <li>These use much less firewood and than traditional cooking fires, and emit much less smoke.</li> <li>This spares the forests, saves families time collecting firewood and keeps the air in the home fresh making it a much healthier environment for the whole family.</li> </ul> <p><b>If kept undercover, the mud stove is a great way to introduce the concept of energy use and sources to children - and you could try cooking some lunch on it too!</b></p>
<p>Water Harvesting</p> 	<ul style="list-style-type: none"> <li>Rainwater can also be channelled from a roof into butts.</li> <li>Some plants are grown along the 'drip line' where water drips directly from a roof.</li> <li>Simply using compost improves the moisture content of soil also, keeping plants fed for longer.</li> <li>Mulching on top of the soil with leaves or straw also helps to trap moisture.</li> </ul> <p><b>Setting up a water butt is quite simple and can lead to talking about climate change and using natural resources sustainably.</b></p>