

# OUTDOOR MACHINERY GUIDE

Learn about our fenland farm machinery with our outdoor exhibition guide!

This guide gives details of all the outdoor exhibits that cover three areas of the site: start with the plough near the entrance kiosk, then along the open cart lodge, continuing into the field next to the stone barn and finish in the courtyard in front of the Village shop.

If you have any information about the equipment, please tell one of our staff in the kiosk so we can update our records.

## What does that mean? Some Key Terms

Plough	A farm tool that loosens or turns the soil before sowing, or seed planting. Ploughing turns over the uppermost soil, bringing fresh nutrients to the surface. The trenches cut by the plough are called furrows. In modern use, a ploughed field is usually left to dry and then harrowed before planting.
Harrow	An implement for breaking up and smoothing the surface of the soil. This process breaks up lumps of soil, or clods, to provide finer finish. Harrows impact the whole surface of the soil, so as to prepare a seedbed.
Cultivator	A tool to stir and pulverise the soil, either before planting to aerate the soil or after the crop has begun growing to kill weeds. Unlike a harrow, cultivators disturb the soil in careful patterns, sparing the crop plants but disrupting the weeds.



# Fenland Farm Machinery Guide

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## Ferguson 'Little Grey' TE20 Tractor

*Manufactured 1946-1956*

An agricultural tractor designed by Harry Ferguson. It was his most successful design, known as the Little Grey Fergie. It was light weight, small sized, manoeuvrable and versatile. It popularised Ferguson's hydraulic three-point hitch system, which became an international standard for tractors of all makes and sizes.

In many parts of the world the TE20 was the first affordable tractor and replaced the draft horse and manual labour. Many remain in regular use and the model is also a popular collector's item for enthusiasts today. Ours was restored by volunteers in 2018.

2



## Ransomes Single Furrow Plough

*c.1900-1940*

A single furrow plough, made by Ransomes, Sims and Jeffries of Ipswich. Originally it would have been horse-drawn but this one has been altered to have a rack & pinion lifting device.

3



## Wreckin Root Cutter

*c.1930*

Cleans mangolds by knocking off soil before chopping them up. A Mangold (sometimes called a Mangelwurzel) is a root vegetable similar to a beet that is mostly used for animal feed.

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## Tractor Drawn Plough

This tractor-drawn planter/plough is designed to turn over soil that has already been ploughed. It would have had a seed box on the back.

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### **Guyco Sugar Beet Sledge**

*c. 1960*

A type of sugar beet lifter that squeezed the roots from the ground leaving them clean and ready to collect.

6



### **The Kent Gapper**

*c. 1930s*

Made by Bentall and Co. Ltd of Maldon, England. This was used for thinning turnips. It was designed by Irish farmer Mr H. C. Kent who was awarded a silver medal at the Highland Show 1937.

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### **Randell Sugar Beet Hoe**

*c. 1900*

Dips lightly between rows removing weeds but without damaging the crop.

8



### **Howard Sugar Beet Lifter**

A simple two-horse implement with a strong vertical steel knife attached at the top of the plough beam and two small cast-iron shares at the bottom. These act as a wedge, running beneath the rows, raising the beet and loosening the soil around them.

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### Randell Sugar Beet Lifter

Uses its wedge-shaped share to pass under the beets, lifting them out of the ground.

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### Sugar Beet Topper

1949

Made by the Mern Harvester Company. Removes the leafy tops from the beet crop and pushes them to one side. The tops must then be cleared by hand or moved by a side-rake before lifting the roots.

11



### Maynard of Whittlesford Root Lifter

c.1920s

Lifts the sugar beet root and removes excess soil from it.



### Sugar Beet Lifter

Horsedrawn and took up a single row. These were used until fairly recent times to take up the outside row before bringing in larger machines.

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### Roerslev Sugar Beet Topper

*c. 1940s-1950s*

Takes the top (the green leaves) off sugar beet without damaging the beet. This must be done before harvesting. Can be pulled by either a horse or a tractor.

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### Martin's Sugar Beet Lifter

A horse-drawn beet lifter for harvesting sugar beet.

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### Roerslev Sugar Beet Lifter

*c. 1940s-1950s*

Pulled by a tractor, this harvests the beets themselves. The cage cleaner knocks off the mud to save this being done by hand.

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### Bull Tether

Used at Canteloupe Farm, Trumpington, Cambridgeshire, bulls were attached to this tether to prevent them roaming off. The tether can be moved when in wheeling position to change the position of the tether.

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### Massey Harris Combine Harvester

c. 1950s-1960s

This combine was likely used for field trials as it's only 6ft (1.8m) wide. Normal combines today are around 40ft (12m) wide. The introduction of these machines improved the potential yield of crops. Before there were combine harvesters, agricultural workers had to harvest crops by hand:

- Cutting the crops with a long-handled cutting tool such as a scythe.
- Bundling the stalks up into 'stooks' or bales to be used for animal bedding.
- Separating the edible grain from the inedible chaff by beating the cut stalks (known as threshing).
- Cleaning any remaining debris away from the seeds to make them suitable for use in a mill.

This took a lot of time, people and special tools, some of which are displayed in the Stone Barn. Modern machines do the whole job automatically. Grain is collected in a tank inside the combine harvester (which is emptied regularly into carts pulled by tractors that drive alongside), the straw is cut for the bailer to collect later and the chaff, or waste, spurts from a big pipe at the back and into the field.

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### Water Carriers

These were used to carry water and were pushed along by hand.

18



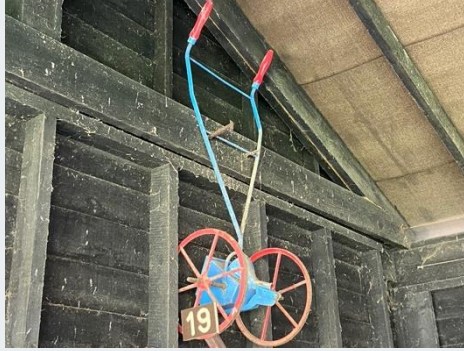
### Ransomes and Rapier Elevator

Built in Ipswich, the elevator was donated as part of the Fossey Collection.

After hay or straw has been baled, the elevator lifts the bales from the threshing machine into a hay loft to be stored or to the top of the stacks if storing in fields.

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### Hand Seed Drill

A device that sows the seeds for crops by positioning them in the soil and burying them to a specific depth. This one has handles so it can be pushed along by a labourer.

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### Snowplough

This was pulled by a tractor and used to clear snow in Great Eversden, Cambs.

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### Horse-drawn Cultivator with Martin Tractor Seat

c.1960

RASC (Royal Agricultural Society, Cambridge) First Prize 1960 winner. Cultivators break up the soil, either before planting or after the crop has begun growing to kill weeds. Unlike a harrow, which disturbs the entire surface of the soil, cultivators are designed to disturb the soil in careful rows, sparing the crop plants but disrupting the weeds.

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### Bamlett Grass Cutter

*c.1950*

Used at Willow Farm, Aldreth, around 1950. Sickle mowers, or finger-bar mowers, have a long bar on which are mounted fingers with stationary guard plates.

In a channel on the bar there is a row of very sharp blades or sickle sections that move back and forth along the channel to cut the grass or other plant (a bit like an electric hair clipper). It can be tilted to adjust the height of the cut and a spring-loaded board at the outer end guides the cut hay away from the uncut hay.

These were the first successful horse-drawn mowers on farms and the general principles still guide the design of modern mowers.

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### Swath Turner

Used by the Fossey brothers at Great Eversden along with a tractor. A swath turner is an agricultural machine for turning/inverting and thereby aerating a row of cut crop, usually grass, hay or straw. Generally, they can be classified as special types of hay tedders/turners

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### Hay Rake

*Used until c.1980s*

A Bamford 'Lion' triple action rake, used at Haddenham until the 1980s. Hay is grass that is cut and left in the fields to dry. It was made in the early summer and used in the winter for feeding cattle. Drying is sped up by turning the hay. When dry, the hay was gathered with a hay rake and made into stacks. Today hay is made into bales and stored.



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### Two Part Harrow

Made to fit alongside each other. Coarser harrowing is used to remove weeds and cover seed after sowing.

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### Cooke of Lincoln Cultivator

A Cooke of Lincoln cultivator, which adjusts with a slot and lock nut.

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### Cultivator

A cultivator which adjusts with wedges onto a central blade.

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### Plough

A single furrow, mulched ridge furrow plough by E and H Roberts, Deanshanger. It used to be used for Plough Sunday in Haddenham church. Plough Sunday is a traditional English celebration of the start of the agricultural year, usually held on the Sunday after Epiphany in January.

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### Howard Bedford Potato Ridging Plough

*c. 1940s*

Potatoes are grown in ridges, a deep and continuous mound of soil containing potatoes buried within. These ridges are created by the ridging plough which is a simple machine dating back to the 1940s. These help to cover potatoes and stop them being damaged by sunlight.

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### Cultivator

A horse-drawn cultivator manufactured by Barnard and Lake (Rayne, Essex). It would have been used to break up the soil prior to ploughing.

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### Howard Bedford 'DD' Plough

A two-wheeled, horse-drawn plough that made a single furrow.

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### Ransomes, Sims & Jeffries 'CLAKUT'

*c.1945*

A two-wheeled, horse-drawn plough, originally used on Haddenham Fen.

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### Cooke & Sons Moulding/Ridging 'RDG' Plough

c. 1940s

A two-wheeled, horse-drawn ridging plough. This produces a ridge of land that is better for crops such as potatoes or scallions, and results in better drainage.

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### Tractor-drawn Harrow

One of our visitors helped us identify this as a tractor-drawn harrow. Note the cast iron label

J A Choppen  
Agricultural Engineer  
Saffron Walden

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### J. Bissett and Co. Blairgowrie Potato Spinner

Has a strong, wide share that passes beneath the potato rows and completely loosens the soil and tubers, leaving the latter exposed.

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### Chain-type Harrow

This trailed along behind a tractor and was used for gathering up weeds.



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### Cooke of Lincoln Two Furrow Plough

A wood and steel construction, with a third wheel behind the second breast and two disc coulters fitted to help seed placement.

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### Ransomes 'GDN' Digger Plough

A two-wheeled, single furrow horse-drawn plough.

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### Howard Bedford 'Deep Digger' Plough

As its name suggests this plough digs a deeper furrow which is good for potatoes and other root crops.

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### Cultivator

Used to break up the land before ploughing or to weed the land after ploughing. Its careful arrangement of teeth doesn't harm the crop. This one adjusts by two 'arms' through a slot with double bolts.

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### Ransomes 'RHR' Moulding/Ridging Plough

Horse-drawn plough that produces a high ridge of land that is better for crops such as potatoes or scallions (small onions) and results in better drainage.

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### Fenton Sleaford 'Little Wonder' High Head No. 2 Plough

Single furrow plough (semi-match type).

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### Fenton Sleaford 'Little Wonder' High Head No. 1 Plough

Single furrow plough (semi-match type).

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### Ruston Hornsby 'GDRH' Plough

A digger plough, producing deep furrows good for root crops.

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### Fenton Sleaford 'Little Wonder' Digger No. 2 Plough

A digger plough, producing deep furrows good for root crops.

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### Cookes of Lincoln Digger Plough

Horse-drawn plough, creating deep furrows good for root crops.

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### Melotte Brevete Reversible 'Turnwrest' Plough

*c.1930*

Allows the ploughman to return along the adjacent furrows. The mouldboard can be shifted from one side to the other end at each furrow so the furrow slice is always facing the right way. Melotte are a Belgian company and this plough was manufactured by them in February 1930.

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### Sanderson Thorne 'RP' Plough

A two wheeled, horse-drawn ridging plough.

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### **Cole & Son Ridging Plough**

Creates ridges that are good for sowing root crops.

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### **Bedford, Plough & Engine Co Horse Drawn Clean Up Hoe**

Used to the removal of weeds in fields. The farmer would walk behind and be able to guide the horse from the handles and reigns at the back.

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### **Ransomes 'GDRH' Plough**

*Manufactured 1895-1940*

Used at Denny Abbey Farm for deep ploughing until the 1970s. The high mouldboard allowed for larger furrows to be created.

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### **Ransomes 'VRL2' Plough**

*c.1855-1865*

A rare single farrow 'digger' plough made by Ransomes of Ipswich.

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### J. Cole of Ely Plough

Used at Black Horse Drove near Littleport.

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### J. B. Edlington 'EDN22' Plough

Used at Eversden, this ploughed two furrows at a time.

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### Headley & Edwards Cultivator

A cultivator used to break up soil, made in Cambridge. Note the two arms that adjust the spacing of the tines.

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### Wallace & Sons of Glasgow Cultivator

Cultivators break up the soil, to aerate the soil before planting or to kill weeds later. Wallace also made tractors, which influenced the more complicated mechanism for adjusting the tines.



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### Broadshare Plough

Made by W. J. Miller in Haddenham, this was used to break up the hard top surface after the corn had been cut.

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### Three-Corner Harrow

Used at Stone Cross Farm, Haddenham to remove and kill weeds.

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### Cambridge Roller

Used at Eversden to flatten land and break up large clumps of soil after ploughing, it was not named after the place, rather the man who invented it – Mr. Cambridge. Flatter land makes weed control and harvesting easier and helps reduce moisture loss from cultivated soil.

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### Pony Gear

*Last worked: 1937*

A horse or pony was attached to the bar by a harness. The horse walked round in a circle, rotating the spindle and driving the machinery. This was used, for example, to power an elevator (see the Cart Lodge round the corner) to carry hay up to a hay loft.

This machinery went out of use when internal combustion engines were introduced to farms. This particular pony gear came from Sutton and was last worked in 1937.

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### Trusty Tractor

1940s-1970s

This Trusty Tractor has a single furrow plough attached the tool bar, alternatively it could have tools such as skim feet, scuttle feet or harrows attached. The depth of cultivation could be controlled. The long handles allowed the driver to walk clear of the tools and gave him extra leverage to lift the tools out of the ground.

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### Sail Reaper

c.1862, last used 1957

Developed around 1862 to cut grain. When drawn behind horses, the arms rotated and pushed the cut stalks off the platform into piles at the side. Men then collected and bound up the stalks by hand. From the 1880s the binder replaced it and in the 1920s the combine harvester could harvest, thresh, reap and bind all in one go.

This reaper could harvest up to 5 acres in a day and came from a farm in Littleport. It was last used to cut rape in 1957 as a storm had damaged and flattened the crop and the more modern binder machine was unable to cope with the cutting.

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### Ransomes Potato Lifter

1890s

This lifter would be used to lift potatoes out the ground and would be pulled by horses. The wheel at the back rotated and dug the potatoes out of the ground, throwing them out to the side for pick up by worker.

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### Lister Blackstone No. 1 Potato Digger

1930s

Blackstone & Co were based in Stamford, Lincolnshire, and, in 1937, were taken over by Lister to form Lister Blackstone. This digger probably dates from the 1930s, marked by the name 'Lister Blackstone'.

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### Dibbing Machine

Pulled by a horse, this was used to plant seed potatoes. Holes were created by the raised dibbers as the wheels turned around. The distance between each potato seed could be adjusted by adding or removing dibbers.

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### Potato Elevator Digger

The No 16 one row potato digger, this would be pulled by a tractor and would be used to remove the potatoes from the ground. They would then move up the chain elevator and would drop into sacks or onto the ground to be collected.

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### Potato Spinner

*c.1895*

Known as the Cambrian Digger and manufactured by Powell Brothers and Whitaker Ltd, this would have had a net attached to catch the potatoes that were spun out of the ground. This machine won first prize at the Royal Society's show in Newcastle in 1894 or 1895.

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### Tyre Bender

Used by the wheelwright, this machine was used to bend and shape metal rims for wooden wagon wheels. This tyre bender is unique in the fact that it has four wheels at the base so that it could be moved by the wheelwright's team to where it was needed.