

Kilts, dung and Harry Ferguson!

By Ian M. Johnston — The Tractor Historian



A first time intending visitor to Scotland is likely to imagine that all Highlanders wear kilts, have hairy legs and run equally hairy looking cattle with dangerous looking horns.

On the subject of kilts, during a recent visit to Edinburgh, the only kilted gentleman I observed parading along Princes Street was a Japanese tourist! And the hairy looking cattle are of the Highland breed which require their double layer of shaggy hair to enable them to remain outside throughout the year and graze the glens and moors, even in the bleakest of winters.

But I digress.

Scottish farms are the most efficient in the world if measured by yield per hectare **continually over a period of many hundreds of years**. Think about that, and the question will follow — why is this so? Three basic reasons.

THE ICE AGE

Back in the mists of time, Scotland was engulfed in an ice age which brought with it glaciers from the Arctic north. Over thousands of years, the ice moved inexorably south, gouging out deep ravines and carrying with it billions of cubic hectares of soil. The big thaw eventually came at a time when the ice had advanced south to a lateral line, roughly extending from Glasgow in the west to Forfar in the east.

The result of the thaw was to dump this enormous quantity of mulchy top soil onto

the area, known in geological terms as the Central Lowland Rift. Today we know the area as Ayrshire, Berwickshire, The Lothians, Fife and part of Perthshire. The stunningly beautiful highland lochs and glens are the legacy of the carving and gouging of the glaciers.

The southern part of Scotland known as The Borders, was not reached by this last glacier and therefore remains less topographically dramatic than the Highlands. But be sure, the Border country has its own characteristic mellow beauty and is steeped in romantic history.

But of significance here is that the fertile heart of Scotland, created by the last ice age, boasts a quality and depth of rich top soil rarely found in other parts of the globe.

INTRODUCTION

I recently became involved in a discussion concerning Scottish agriculture during World War II. Having been raised in a farming community in the ancient Kingdom of Fife, I was able to hold centre stage and bore everyone to distraction as I waxed on about Clydesdales, Golden Wonder potatoes, Model N Fordson tractors, land army girls — and dung! Surprising though it may seem, of all of these, dung was (and still is) the most important. Believe me!

As there is a large group of adventuresome, enthusiastic, and scholarly inclined Oz farmers shortly heading for the land of bagpipes, rare malts and tall stories, on a study tour organised by the publishers of this magazine, I felt it my duty to elaborate within these pages the intellectually challenging subject of Scottish dung. Hopefully this will encourage the group to perhaps by-pass a distillery or two, in their anxiety to discover more about the mysteries of this excellent Scottish product — dung!

DUNG

Even the best quality top soil will erode its nutritional value following hundreds (indeed thousands) of years of constant farming, if the land is not **husbanded** and the goodness replenished. The cold inhospitable Scottish winters have in fact been the catalyst, which not only saved, but further nourished the soil.

Apart from the hairy Highland cattle, plus black faced sheep and Shetland ponies, all livestock in Scotland has to be housed at least for the duration of the long cold winters. Each day, a fresh thick mat of dry straw bedding is scattered on top of the previous day's placement. In addition, bales of fodder are fed to the pampered animals.

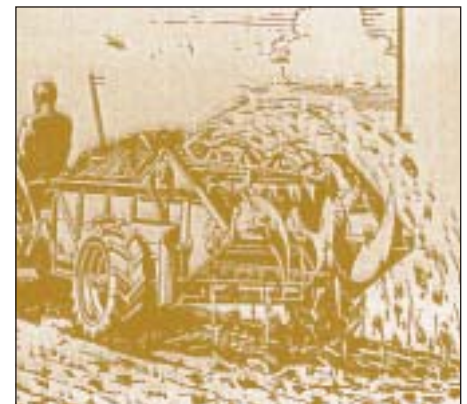
The interiors of the byres and steadings (barns) become hot and steamy. Ploughmen and tractor men will seek refuge therein to thaw-out in the warmth, as they consume their lunch-time tasty haggis sandwiches, washed down by piping hot hearty broth.

I have no doubt the inhalation of the rich dung aroma must have some therapeutic benefit and may behaps contribute to the hairiness of their legs!

In even a small steading, housing perhaps 30 beasts, hundreds of tonnes of ammonia-smelling straw, saturated by animal urine and excrement, will have accumulated by the late spring, when the joyous beasts will be allowed out into the fields.



The Ferguson Manure Loader was operated by a series of links connected to the three point linkage system. It was capable of raising 1000 lbs of dung, sufficiently high to load into the spreader.



The Ferguson Manure Spreader had a floor mounted chain driven elevator which fed the revolving thrower blades. It could be regulated to spread between six and 30 tonnes per acre.

When the animals first entered the steading during the autumn months, they had stood at floor level. Following months of the daily addition of straw bedding, the entire 'floor' level would have risen to a height of possibly six feet and been trodden into hard packed dung.

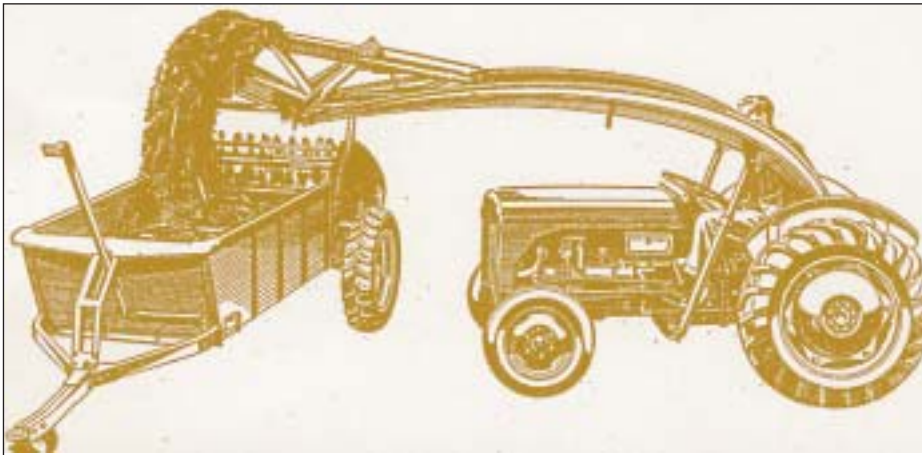
Until the late 1940s, forking out the compressed dung, using a forked implement known as a 'grape', was undoubtedly the most back breaking job on the farm. Sweating labourers forked out the dung

and loaded it into horse carts. The two wheeled tipping carts, pulled by powerful Clydesdales, were trundled usually some distance to an area in a field where the dung was tipped out to eventually form a long continuing pile of maybe 50 metres. Progressively, the carts with fresh loads were pulled over the first layer and so on until a rectangular midden of rich dung stood shoulder high in the field.

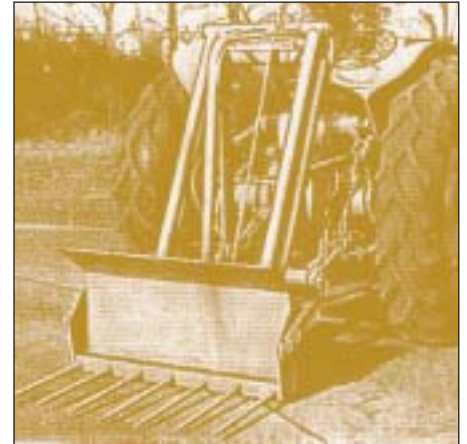
There it remained, steaming, gurgling and settling for some months. During this

time it enriched as billions of microbes went to work. An agricultural boffin once explained to me that the number of microbes that could be placed upon a threepenny bit was equal to the entire population of people in the world. And that was 50 years ago! (For those newer people

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The Ferguson High Lift Loader, with self discharge attachment, was also frequently used to load dung into the spreader. Using two single acting lift rams, fed by the tractor's in-build hydraulics, it was commonly referred to as the 'banana' loader.



This Rearloda fitted with a manure fork, is attached to the rear of a Fordson Farm Major. It was a tedious device to use, as the operator was obliged to constantly look over his shoulder. Consequently few were sold and it proved no competition for the Ferguson Manure Loader.

who are unfamiliar with a threepenny bit — ask your Grandpa).

The following spring the dung was ripe and ready. The midden was attacked by the same sweating men and horses and carted out and spread into the fields, where deep growing root crops (sugar beet, mangles, fodder turnips, etc) would be sown. As these root crops matured they forced the soil apart, admitting oxygen and the precious dung, which enriched the soil in a



As the Rearloda lifted the bucket it was extended rearwards. Heavy counterweights were necessarily attached to the front of the tractor. This illustration is of a Ferguson with the Rearloda attached. Note the uncomfortable position of the operator.



Up until 1947 the Fordson Model N was the top selling tractor in Scotland. It was of archaic design and could trace its origins back to the 1917 Fordson Model F.

(Photo I.M.J. of a tractor on display at a Henty rally)

manner that could not be equalled by artificial fertilisers. The root crops would be followed the next year by grain, then the field would be put down to pasture for a few years, until the cropping cycle rotation with the dung began all over again.

This method of soil husbandry in Scotland has been handed down by untold generations of farming families. Today the soil is rich in humus, worms and the necessary bacteria to yield crops that we here in Australia, with only a scant covering of top soil, can only dream about.

THANK GOD FOR HARRY FERGUSON

Following a slow start, the mechanisation of Scottish agriculture leapt ahead during the latter part of the 1940s. Aged Model F and N Fordson tractors were replaced by the Fordson Major. David Browns, smart in their Hunting Pink livery, became familiar sights across the rural landscape.

But it was the little grey Ferguson that by the early 1950s dominated the Scottish tractor scene. Scores of different implements were available for mounting to its revolutionary three point linkage system, the brainchild of Harry Ferguson and now a standard fitting on most of the world's farm tractors.

But of particular interest to Scottish cattlemen were the Ferguson Manure Loader and Ferguson Spreader. Their introduction instantly relieved farm labourers of the back-breaking task of forking dung out of the byres and steadings and then from the middens.

Suddenly a single man could handle the entire operation without ever leaving the seat of the little Ferguson, and with exert-

ing no more energy than that required to flick a lever.

The spreader/trailer would be uncoupled from the tractor, using the patented Ferguson automatic hook, and parked outside the entrance to the cattle steading. The tractor was then free to enter the doorway and commence forking into the packed dung and emerging with a loaded bucket, the content of which was tipped

IAN'S MYSTERY TRACTOR QUIZ

QUESTION: This rare Loyd tractor, pictured with its owner, smiling Mick Drew, is powered by a side valve Ford V8 petrol engine. This British crawler was also available with an alternative V configured diesel engine. Can you name this alternative diesel engine?

CLUE: This engine also appeared in an equally rare British wheeled tractor.

DEGREE OF DIFFICULTY: Phew!

ANSWER: See page 80.



The Fordson Major replaced the Model N and sold strongly in Scotland. But its four cylinder side valve engine was little changed from the original design first produced in 1917.

(Photo I.M.J. courtesy Andrew Campbell)

into the spreader. When the spreader was full, the tractor backed-up to the automatic hitch, hooked up the trailer and hauled the load, at four times the speed of a horse cart, to the field. There the dung was spread in amounts ranging from six to 30 tonnes per acre across the field. All this — without the operator leaving his seat!

Agriculture is big business in Scotland

today. Vast improvements in mechanisation, coupled to new strains of hybrid seed, enable this small country, consisting geographically largely of non-arable land, to produce food and fibre far beyond the expectations of its limited acres. But all the modern advances would mean little, if the age old practice of feeding dung to the soil was not still a pivotal part of Scottish farm husbandry.

A STERN MESSAGE!

It is my fervent hope that the members of the Greenmount Travel study group will have the necessary fortitude to reduce the time spent on golf, lengthy haggis luncheons and the sampling of rare malts, and apply their intellect to the far more important matter of Scottish dung! 🍷



The first of the Cropmaster models, introduced by David Brown in 1947, proved to be the most comprehensively equipped tractor sold in Scotland at that time. Pictured is a 1953 Cropmaster, restored by the author and now on display at a newly created tractor museum located at Macksville, NSW. (Photo I.M.J.)



The Ferguson TE Series was introduced in 1947 and for over a decade was Scotland's number one selling tractor. It incorporated the Harry Ferguson patented three point linkage, which revolutionised mechanised agriculture. This restored example is owned by A. Latimore. (Photo I.M.J.)