

CUNBIN FOREST

12/3/49.

S 7 Al.

Thatching experiment with C.P. needles.

Area of Plot. 40 yds x 40 yds: 1 acre.

Materials used: - C.P. needles & S.P. brushwood

Materials transported by: - Motor-lorry.

Costs:-

Cost of lifting and bagging C.P. needles taken from 1 acre of established plantation.

= £8-19-4.

Cost of ~~thatching~~ scattering needles and thatching the acre with a density of thatch slightly less than normal thatching.

= £4-4-10.

Cost of Haulage of thatch by 2 horses and 2 men from wood to side or roadside.

(2 days - 2 horses for 6 loads) = £6-15-4 (approx).

Cost of Haulage of thatch by 2 motor-lorries (4 men for 1½ days) from side or roadside on to sand area.

= £5-3-3.

Approx cost of petrol and oil.

10 galls petrol @ 2/- per gall. = £1-0-0

1 pint Oil @ 1/-

1-0.

The cost of preparation of sketch material is not included, as in this case the material was taken from a camp recently skinned and therefore the sketch was already prepared.

Total cost of acc. = £29-6-9

Certified approx. correct.

E. L. Stewart.

Summary.

Cost of Collection of needles.	£ 8-19-4
Cost of Thatching.	£ 4-4-10.
Cost of Haulage by horses & men.	£ 6-15-4.
Cost of Haulage by lorries & men.	£ 5-3-3.
No. of loads used.	<u>6</u>
Approx weight =	<u>18 tons</u>
Approx cost of Petrol & Oil.	£ 1-1-0.
Total cost of acre.	£ <u>29-6-9</u>

E. Stewart

Cost of bagging C.P. needles done by boys. If done by men would have cost another £2.

Copy to Mr. J.A.M. Kennedy

THW/JW

2nd November, 1949.

S 7 C.P.

Memo. to Conservator.

Culbin - Thatching.

I see from Kennedy's annual report and from the details given in Milne's report that the cost of thatching at Culbin for last year is about £55 per acre. This includes all labour charges, petrol and oils, but does not include a charge against tractors, lorries or bogies.

The position now appears to me to be this:-

Substantial economy cannot be obtained by reducing density of thatch any further; both the District Officer and Forester are quite certain that this leads to trouble; we could make a very slight economy, I am certain, by extracting brush attached to the stick and this you will have seen we are doing this year; the whole operation as carried out at the moment cannot be cheapened materially.

What I now suggest is that we try out the possibilities of a mechanical loader on the lines of the Chaseside tractor. This particular model - I attach catalogues - is probably not at all suitable but we should easily be able to get a swivelling jib type of some other make. I would like to point out the implications of using a mechanical loader. The whole operation would be speeded up so that we would complete our thatching programme in about one-third of the time. This means, of course, that our thinning programme would have to be completed first of all, and that men and machines would then be concentrated on the operation of thatching.

There is no doubt, I think, that we probably cannot muster sufficient tractors and bogies to employ the mobile crane to its full/

(over)

full capacity, but we can certainly muster sufficient to justify its use.

On this basis I would suggest that about six tractors might be employed hauling to the sands and three crawler tractors operating on the sands. There is little doubt that over a short period we can spare this equipment from what we already have.

There are obvious difficulties in this arrangement, but I am sure we can overcome them as they are likely to be only difficulties of organisation. There is no doubt that in this way we can cheapen the job considerably. If you agree to its broad lines I suggest that Col. Blenkinsop and myself should then get down to working out the details with the local staff, after, of course, we have decided what type of mobile crane will suit our purpose.

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State Forest Officer.

Copy of letter from

A.G. & W.J. Riddoch.
Timber Merchants.
Rethiemay.
Scotland.

Dated 9th December, 1949

To Conservator.
Forestry Commission (Scotland)
Divisional Office (East)
6 Queen's Gate.
Aberdeen.

Dear Sir,

With regard to our recent visit to Culbin along with Mr Woolridge and others, as arranged with Mr Woolridge, we took a day to think the matter over and then had a further conversation with Kennedy and Milne. The following observations may be of use to you.

We do not see how the work in loading can be cheapened very much by mechanical loaders of any description which we know. In our view, to take reasonable advantage of such mechanised aids requires the handling of a big volume of stuff and these tools require a lot of room in which to work. The volume of stuff which you can get and the scattered way in which it can be laid out would make the proper working of an elevator or crane somewhat difficult. In any case, the amount of labour saved would not be great enough to warrant a complete change of method with the inevitable snags which would be sure to arise. At this stage it may be possible to improve on the dragging out of thatch by the horse. It appeared to us that the amount of work which the three horses did was not very great but we were looking at an area where the drag was very short. It might be possible, however, to improve the quantity dragged per day at each place if the number of horses were reduced by one and the number of men making drags was increased by one. This may not be reasonable but it might be worth some thought.

We think too that some saving can be made in the hauling of your thatch to the sands.

In the first place, if the bumps on your rides were graded off you should be able to haul the loads with a tractor from the loading site direct to where the Caterpillar takes them up, or, alternatively, on to the sand where a four wheel drive lorry can presently go. This would involve the use of a four wheel drive tractor.

We considered that something of the type of a latil should be well able to take two bogeys at a time from the loading site to where a Caterpillar can take them up to the sand or right on to the sand itself on easy places eight times per day. That is, it should do the work which two Fordsons plus an occasional half-truck Fordson are presently doing.

If you wish to try out this type of machine, we can lend you or hire you a four wheel drive chevrolet or morris ex army machine which we use on difficult places or on steep gradients for hauling telephone poles on a two wheel bogey or for hauling a four wheel bogey with a load of timber. They have only single wheels of course but we find that they can work in places which we would normally consider impossible. They are not so good as a latil but may give some indication as to what is possible.

If one tractor is to be expected to do the work of two Fordsons then delay in turning round would have to be avoided, i.e. this tractor would not have to wait for empty bogeys coming back from the sand and it may well be advisable to have a spare set lying handy.

Such a machine should save about 70/- per day if it replaced two Fordsons and a part time half track. The question as to whether a four wheel drive tractor could haul bogeys right on to the thatching site by roughly levelling out roadways in the sand/

sand hills about 40 ft. apart might be considered but we are not at all sure that this is a practical proposition as although elimination of a Caterpillar Tractor would be a substantial saving, still if the four wheel drive tractor stuck occasionally, the saving might soon be cancelled out. This possibility might however be considered if the four wheel drive tractor proved itself capable of hauling bogeys on to the sand on easier places. If such tracks were pushed out by a grader it might mean that some grass areas were eliminated thus meaning more thatching and no doubt there are other points which would have to be thought of.

The whole problem is a difficult one and at first glance one would have thought there was substantial room for considerable savings in the work but although we have thought of it quite a lot we cannot yet see clearly other ways of substantial saving.

When the Ledy Culbin area has been thatched it may be possible to grow more grass and this may well effect substantial saving.

We fear that these suggestions have not been very helpful and they certainly do not show the road to the substantial savings which we had all hoped for. We can still be giving the matter thought, however, and if we can suggest anything further, we shall certainly let you have our ideas whether they prove fruitful or not.

We are,
Yours faithfully,

Signed: A.G. & W.J. Riddoch.

MR. J.A.M. KENNEDY

XXXXXXX 33361

FO/MVP

19th December, 1949.

S 7 *cl*

Dear Sirs,

Culbin Forest.

I am much obliged for your letter of 9th instant and for your kindness in going into our Culbin thatching problem at considerable length.

We shall most certainly start by looking into the possibility of improving the dragging of brush with a view to getting out more per horse and man per day.

As regards your suggestion of an improved type of lorry to haul thatch by pole wagon from the loading site to the Crawler or even direct to the sands, we are interested in this and will be glad to try it out.

We should therefore be glad to accept your offer of a suitable type four-wheel drive machine and, if agreeable to you, would hire this machine for say one month's trial of the method.

I am sending a copy of this letter to Mr. J.A.M. Kennedy so that he can get in touch with you at your mutual convenience to discuss details. I understand that at the moment he is obtaining thatch from a plantation outside Culbin, so that there would be no immediate urgency for beginning work with a four-wheel drive.

In the meantime let me thank you once again for your help.

Messrs. A.G. & W.J. Riddoch,
Timber Merchants,
ROTHIEMAY.

Yours sincerely,

(Sgd.) F. OLIVER.