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LETTER

TO A *Cunningham*  
Gentleman in EDINBURGH,

CONCERNING

Mr. GRAEME of *Argomery's* Improvements  
of Moss, and the Benefits of these Im-  
provements to the Nation.

EDINBURGH:

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them and other Bookfellers; and by the Bookfellers in  
*Perth, Glasgow, & Stirling.*

M,DCC,LIV.

(Price Three Pence.)

S I R,

IT is with great pleasure that I comply with your desire, and give you my opinion, with a short account of the improvements of moss carried on by Mr. *Græme* of *Argomrey*, on the west side of *Stirling*. Your desiring this would be a sufficient motive to me, tho' I had not any other. But I confess I have a farther view than that of gratifying your curiosity. I would gladly recommend this attempt of Mr. *Græme* to your patronage and protection, that as a public-spirited man, and a man of influence in this country, you may take the proper methods of encouraging an undertaking, which, in my opinion, is extremely useful, and deserves the highest encouragement. After you have read this letter, if you shall think that it may be of any service to make it more public, I freely consent, and give you full liberty to publish it in what manner you think best.

You know very well how difficult it has been commonly thought to improve the mosses in *Scotland*; that it has been generally looked on as impossible, in any other way

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than by draining them so deeply, and getting so much to the bottom of the moss, as was judged impracticable without an expence too great for private hands. An opinion of this kind, and the common methods used in rendering our mosses proper, either for tillage or pasturage, have been the occasion of the slowness of our improvements of this barren soil. Very little has been done hitherto, and our improvements of moss have not been answerable to what we have made in our other grounds. But Mr. *Græme* has at length taught us to improve these barren fields to as great advantage, and with as little, or rather with less expence, than others; and thus hath laid open a scene of plenty and riches unknown to our forefathers.

It was early in the year 1750 that Mr. *Græme* began this husbandry; he has been carrying it on ever since, and has at last brought it to no small degree of perfection. He has not indeed been able to do this without a great variety of experiments, of different sorts, and a considerable expence to himself: nothing else could have been expected. His progress has been the more slow, that the seasons were not always favourable; but he seems

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at length to be in a fair way of overcoming all difficulties, and hath both found out, and set us an example of the easiest and cheapest methods of improving our mosses.

WHEN Mr. *Græme* first entered upon this design, as has often happened to the inventors of the most useful arts, he was laughed at by the whole country, and the design was said to be utterly impracticable. Many could even demonstrate that it was impossible for him to succeed, and made this a frequent subject of their conversation. You know how discouraging this is. But Mr. *Græme* bore every thing with patience; he went on with his design notwithstanding these pretended demonstrations; he had considered his undertaking very maturely before hand; he made a variety of experiments; if one method did not succeed, he had recourse to another. Thus his improvements gradually advanced; every season caused an alteration to the better; these mossy fields, which had been so long barren, began to produce wheat, barley, potatoes, and lint, all good of their kinds, and in a large quantity; his project has succeeded wonderfully; and he has not only overcome the difficulties which arise from the nature of

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the foil, but, which may be reckoned a greater victory, he has gone a great way in overcoming the prejudices that had been entertained against his undertaking. Many have opened their eyes: at first they would scarce take the trouble of looking at his fields; but now they begin to be convinced that his schemes are practicable; and some who had gone farthest in ridiculing them, are at last become the greatest admirers of this uncommon husbandry.

I am not, I would not wish to be thought a projector. You know that I have rather a sceptical turn, and have been apt to doubt in cases when many others have been convinced. I incline much to the method of experiments in natural philosophy; it is dangerous to trust much to theory; 'tis by experience alone that we can attain to the real and certain knowledge of nature. Agriculture is a part, nay one of the most useful parts, of natural philosophy; it is by frequent trials that we can gain a mastery in this noble science, and be fully instructed to cultivate and subdue the earth. I do not say that it will not require more experiments than Mr. *Græme* has had time to make hitherto, to  
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carry his improvements to the highest pitch; but I do say, that he has gone very far, and done a great deal already; he has set the gentlemen and farmers of *Scotland* a fair example, and they have great reason both to encourage him and to imitate him. I was not easily convinced of this; but I am convinced of it now. I despaired of his success for a couple of years and longer; but after surveying his fields at different seasons of the year, and conversing with the gentleman himself, and the workmen whom he employs in labouring his mofs, I cannot but be persuaded, that his improvements will turn to good account.

I do not propose in this letter to give you a full and minute account of his method of husbandry, and the instruments he makes use of. I scarce reckon myself able for the task; besides it would be tedious, and, in a great measure, useless. If you, or any other gentleman, want to be fully instructed in this sort of agriculture, you will know it much better by going to these fields, by surveying every thing yourself, and conversing with Mr. *Græme* and his labourers. - None can inform you so well as Mr. *Græme* himself; none will  
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be more willing to do it. He has been thinking of this subject continually for several years; he has seen the different turns that every thing has taken, and may be very useful to any gentleman or company who propose to undertake a work of this kind. I shall only give you a general view of his methods; but propose to be a little longer and more particular in shewing how successful he has been, and what great profit must arise to this part of the island, from this new kind of agriculture.

IN every field which Mr. *Græme* intends to labour, he makes only a few small ditches for drains, three feet deep. This work is easily done. He pairs his field: he covers it with earth which he brings, by an easy carriage, from the adjacent grounds; or, if these grounds are too distant, and render the carriage too expensive, he gets earth enough by digging in the moss itself; he mixes this earth with ashes, which he purchases easily, by burning the moss; he can burn his moss both in winter and summer, and both in dry and wet weather. He hath found out a curious method of keeping *in* his fires; so that we see his mosses burning in the most rainy season;

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son; he can work in his grounds all the winter round; in frost he can lay earth upon them; when there is no frost he can plow them. It ought in particular to be observed, that he can plow safely both in wet and dry weather; nay sometimes it is an advantage to plow wet, because the breast-plough can then easily plow deep enough, as the men's feet and the roller break the moss, the earth mixes freely with it, the field is made smooth by rolling, and the mould is brought into a proper consistency. Constant tillage impoverishes other, but greatly meliorates a mossy soil, makes the mould firmer, and renders it more fruitful. In general, his breast-plough, his harrows, his rollers, and all his instruments, are suited to the nature of his soil and labour, and can be easily purchased; he needs not any stock of cattle either for dung, or for labour; he can do all his work with men, without horses or oxen; a single man pushes his breast-plough easily before him: he needs not lay out money for dung or lime; nor is he obliged to expensive carriages; the materials for manuring his grounds are all at hand; he wants nothing but ashes and earth, which are within his grounds,

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or hard by them, and cost him nothing but a very cheap and easy labour. - In short, this is the only soil in *Scotland* which the farmer can make as rich as he pleases, solely by his labour, without giving any money out of his pocket, or going from his own grounds for materials: it is almost the only soil which he may bring to what consistency he pleases, according to the different grains which he intends to sow. 'Tis a soil which he may be said to create, and make wholly to his own mind.

How much preferable, in some respects, is this to the common scheme of husbandry, and how much less expensive! A very small stock is sufficient for setting up a farmer in this new way; the other requires cattle, both for obtaining dung and for labour; when his cattle die, the farmer is often ruined, or greatly impoverished; he must pay dear for lime, and the carriage of it is often very expensive. By conversing with Mr. *Græme* and his workmen, I have been assured, that an acre of moss can be effectually dressed at the highest rate for forty Shillings *Sterling*, of which twenty Shillings go for digging and laying on the earth, ten for pairing, five for burning,

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ing, and five for extraordinary charges. This is the very highest estimation; for I have been well assured, that ten shillings may generally be deducted, and an acre be well prepared for thirty shillings; nay that a farmer, working it wholly by his hired servants, may labour it for twenty five. The expence of preparing effectually an acre of our other uncultivated, commonly called *OUTFIELD-*grounds, which yield three crops of oats in six years, is much greater. If the soil is clay, we allot five chalders of lime to each acre; lay on earth as thick as on the moss. It is also dunged and plowed oftner than once. In the dry fields and lighter soils, we are obliged to use much the same culture; only we think three chalders of lime sufficient. So, on a just calculation, it will be found, that the expence of cultivating these other barren soils is double, and in the clay grounds can scarce be computed at less than five pounds, or four pounds, ten shillings for every acre.

You will perhaps think, that these other grounds being once well prepared, are kept longer in heart; by which, and by the better crops which they yield, the farmer will be

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re-imbursed for his greater expence: but this will not be found to be the case. Mr. *Græme* has had as good crops on his mosses, as most of the grounds around them are capable of yielding. These mossy fields produce good crops, not only of oats, pease, the common bean, but of barley and wheat; they yield potatoes and rape; I have seen both good clover and natural grass upon them; and after two or three years culture, they bear good turnips. Most of his acres of wheat and barley, may be computed to produce seven, and some of them eight bolls. The grain too is as heavy, or heavier than in any of the fields around. This has been proved by several trials and experiments. The crops of potatoes are plentiful, and the potatoes good. Affidavits were made last year by the workmen, who planted and raised the potatoes, that generally they digged between fifteen and twenty six good saleable potatoes from the root of one stalk. An acre right dressed will yield thirty bolls. This is a very good increase.

NEITHER does moss cultivated in this manner immediately run out; tho' I have heard this started as an objection, sufficient  
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to discourage all attempts of this nature. It is well known, that, in order to have even but tolerable crops of barley, oats and pease, in a constant succession upon our other grounds, they must be kept in heart by a repetition of earth and dung every third year: else they will not hold out to advantage. Now, if the moss be refreshed with earth and ashes every third year, I am sincerely of opinion, that it will hold out longer, and improve every year by the tillage. It is true, that there has not been time hitherto to prove this by experiments, beyond the possibility of cavilling; yet it seems highly probable both from the nature of the thing, and from the more imperfect trials which have been already made.

BUT I must not omit what deserves our most serious attention, and is perhaps of chief consideration, that these mossy grounds, as improved by Mr. *Græme*, are found to be an excellent soil for producing lint, and thus supporting and improving our linen manufactures, which are of so great consequence to this nation. Within these last thirty years, we have not only given a beginning, but have made considerable advances in this  
manufacture.

manufacture. During a year or two backwards, it has been loudly said, that it is rather on the decline. I hope this is not true; and have good authority to say, that a greater quantity of linen, and of a greater value, has been stamped during the year preceeding *Martinmas* last, than any of the former. But let this be as it will, if there is any truth in it, it must be owing, in some measure, to the scarcity and dearness of the lint; from which it follows, and indeed it must be true at any rate, that it will be a very great advantage to raise up as much lint as we can, and of all the different kinds which are necessary for the manufacture. Now Mr. *Græme* has both found out a proper soil, and taught us the proper methods of raising different sorts of lint upon this soil. He can raise lint either coarse or fine. If he wants strong rank lint, he plows the ground very deep, lays a greater quantity of earth upon it, and a great deal of ashes; harrows them well; then plows his fields half as deep as before; after which he sows *Riga* lintseed thin. If he wants shorter small stalked or fine lint, he does not plow so deep, gives less ashes, and sows *Dutch* lintseed thick. He has raised of both kinds, especially

especially the coarse, which is most wanted, and is perhaps most profitable for this country. His lint looks well, is of a sufficient length, has satisfied the lint-dressers, spinners, and weavers, in this part of the country, who have tried it. Its goodness has also been attested by the lint-dressers about *Edinburgh*. What reason have we to think that it will not prove as good as other lint which looks no better. 'Tis natural to conceive, that a composition of earth, moss and ashes, duly mixed, is a soil very proper for vegetation. It is certain, that the ashes of moss laid upon earth make a fruitful mould. It is agreed, that a black loamy soil is the fittest for producing lint; and such soils are always sought out for this purpose. Now, this is the very soil Mr. *Græme* hath found out; and thus his discovery seems to be agreeable to general experience.

THESE observations concerning the advantages of raising lint in this new method, lead me naturally to consider, that this husbandry may be rendered extremely useful for banishing idleness and theft out of the Highlands, for improving and civilizing them, and for introducing industry and plenty. Nothing is more  
wanted



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wanted, nor of greater advantage ; nothing seems to be more at heart with the legislature. A great deal of money has been most wisely expended for making good roads and for surveying the Highlands; useful maps have been drawn, after surveys made, with great care and exactness. Many excellent laws have also been framed for civilizing this uncultivated part of our country, and making its inhabitants taste the same freedom and independence which is enjoyed by the rest of the *British* subjects. Among others, I cannot but take notice, with a particular pleasure, of the late act, annexing certain forfeited estates to the Crown ; if this act shall be carried into execution, according to its true meaning and intent, it will be of greater service for civilizing the Highlands, than any thing that has been done hitherto. Care has likewise been taken, to place different bodies of the army, in proper stations, for restraining theft, and for repressing disorders. Never perhaps were our soldiers better employed in times of peace ; and, as they have done their duty, they have been very useful. In short, no expences have been spared to lay a foundation for improving this barren part of the island. All this tends greatly

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ly to his Majesty's honour, and the honour of the legislature and administration. All is necessary and wisely adapted for preserving the peace of the united kingdom, for restraining the turbulent temper of the Highlanders, for preventing them from breaking out into insurrections and rebellions, and from making inroads into the low countries in *Scotland*, or into *England*. How much did they disturb the whole island by their last rebellion, and what vast sums have they cost the nation !

AT the same time, those who know the Highlanders best, know very well that they are as ingenious and as tractable, in many respects, as other people ; their faults have arisen rather from necessity than choice ; and the blame ought not so much to be laid on those of lower, as on those of higher rank, who have taken so little care to introduce better customs, nay, have connived, and perhaps encouraged them in bad ones, and often kept them in downright slavery. They have but few spots very proper for tillage ; pasturage has been their chief employment ; this requires many fewer hands than the other : thus they have been accustomed and bred

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bred to idleness; and multitudes among them having nothing to do, this has led them to stealing and robbing, and rendered them so turbulent.

Now as it is universally agreed, that the introduction of industry among them is the best method of curing these evils, what sort of industry can be more proper than raising lint from those mossy vallies that are so common at the bottoms of their mountains? They have but little soil fit to produce corns; none of it can well be spared for any other use. A few dry sandy hills, which might bear fine lint, ought rather to be kept for corn; many of the mosses, on the tops of the hills, can yield but little on account of the severity of the climate, and the frequent fogs and rains; if they can be made more useful, it will be chiefly by producing better crops of grass. But the mosses, at the bottoms of the hills, are fit for bearing coarse lint. This is most necessary for them at first, as they must be first taught to manufacture the courser before the finer lint, and perhaps the courser is most profitable in general. They have not money to buy lint from other places; but they may raise it by their own labour in their own grounds,

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grounds, and what they raise in this manner, they will be more easily prevailed on to manufacture, than what they may consider as a foreign commodity. In these mossy vallies they may also raise abundance of potatoes; and after they have prepared a greater quantity of moss than is sufficient for lint and potatoes, they may employ the overplus in raising corns. This sort of husbandry is the most proper for them on another account, since they can labour these mosses with the smallest horses they have, or by men intirely, without any cattle at all. This last circumstance is of great consequence in their case, as their provisions are so scanty, and they can spare so little from their own sustenance, for the support of labouring horses.

If a scheme of this nature were pursued, how soon might industry be introduced into the Highlands? An acre of ground in lint, by the various manufacture it requires, will give employment, and furnish bread to more people, than five acres in grain, tho' the best in the kingdom. This sort of agriculture will be most easily introduced at first into the forfeited estates which are vested in the Crown. The possessors of these estates will

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have more advantages, and greater encouragement to improve their grounds than most others. The commissioners and trustees for managing these estates will have it in their power to do great service in this way, by a proper choice of persons, to whom they shall grant leases and by other ways. If fifty or a hundred of the army who knew husbandry best, and had seen the best methods of improving lands, were settled in different parts of these estates, they might become very useful: several of them have seen different countries and customs, have been well instructed in agriculture, and were good workmen before necessity or choice or a frolick engaged them to enlist; some of them who are married, and have become wiser, might perhaps be willing to settle in this manner; if they are married to *English* women, so much the better; such women might set examples before their neighbours, and teach them lessons that were never known in the Highlands. A mixture of different people and different customs tends to civilize any country. In this manner also the *English* language would be much more speedily propagated. From these tenants of the Crown, industry would spread  
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among the other inhabitants. It would be natural for poor starving Highlanders, or such as were oppressed by their landlords and chieftains in other parts of the Highlands, to fly to such places for bread and liberty, or to wish to be as near them as possible: thus industry, plenty, and liberty would insensibly be spread over all the Highlands.

WHAT has been said, I hope, is sufficient to convince you, that this attempt by Mr. *Græme* to improve our moor after a new manner, is very useful, and ought to be duly encouraged; we have many, and very extensive moor in *Scotland*; a very considerable part of the country is covered with them; we have much more ground of this kind than is necessary for supplying such as live near it with fuel. This is almost the only use to which our moor have been applied hitherto. What large tracts of them have been entirely neglected, as incapable of any improvement? Let us not always go on in such a criminal neglect. What a different face would it give to the country, were these vast barren fields reduced to good arable, or pasture grounds? This would increase the bulk of the island, add a great quantity of good  
soil

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foil to it, augment the wealth of the proprietors of these moſſes, find employment and provide food for thousands, and greatly increaſe the national ſtock and riches.

I know that it has been objected, that we have commonly a ſufficient quantity of grain in *Scotland* for maintaining the inhabitants; that we have often even more than enough; that grain is often too cheap; that its cheapneſs impoveriſhes both the landed gentlemen and the farmers, and only ſerves to make the poorer ſort inſolent and idle, and by this to prevent the more ſpeedy increaſe of uſeful manufactures: this has been often ſaid, and in ſome caſes not altogether without reaſon. Undoubtedly, if in any year, thro' ſcarcity of grain, we are obliged to ſend *L.* 50,000 to another country for purchaſing what grain we want at home; this will be an advantage, provided this dearneſs and ſcarcity will be a ſpur to as much more induſtry as will produce goods to the value of *L.* 100,000. In this ſenſe, plentiful crops and improvements of lands may be a diſadvantage, and prevent other improvements of greater value. A diſcuſſion of this ſubject might lead one to a long argument, and would be too long for  
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this letter. After all, it is not a little difficult to fix the preciſe proportion, and determine exactly when we ought to employ more hands in new improvements of our lands, and when in other kinds of manufacture. This, to be ſure, is a nice queſtion, and perhaps on the whole muſt be left undecided, and things muſt be regulated by particular, and not general rules.

HOWEVER, in general, improvements of lands and plentiful crops are an advantage; or if they are not, the policy of the country muſt be bad in other reſpects. In general, cheapneſs of proviſions is not only a very great bleſſing to the poorer ſort, but muſt have a happy influence, by encouraging marriages, to increaſe the number of the people, in which the ſtrength of a nation conſiſts. In the preſent condition of *Britain* and *Europe*, there is frequently room for exporting grain out of *Britain* to other countries; which is an advantageous trade. Were our policy good in every reſpect, we could never have grain too cheap, nor in too great a quantity. We have lately had ſome very ſcanty crops in *Scotland*, and have been obliged to import  
grain

grain at a great expence,\* to the detriment of our manufactures; nor do we seem at present to be in any danger of having our lands too much improved, or having too great a quantity of grain; we are rather in danger of not having enough, and agriculture does not keep pace with our manufactures of another nature; this must be the case, if our inhabitants are increasing in number, which at least seems probable. It is true, we have plenty of other barren or *owfield* grounds to be improved besides mosses; nay, most of our best fields may be improved to a greater value: but why ought we not to improve all our grounds in the best manner we can? Why leave such vast tracts of moss, that are capable of improvement as well as other soils, wholly barren and useless? Why should we not enter into companies for improving our mosses, and raising lint out of them, as we establish companies for managing the whale fishery, for making sugar, and carrying on other branches of trade and manufacture? Why ought not landed or monied men to subscribe in these companies as well as they do

\* I have heard it computed, that, in some years lately, a greater sum than 200,000 *l. Sterling* has gone out of *Scotland*, on this account.

do in others where their money is not more secure, and will not yield greater profits? At least, why should not landed gentlemen who have large mosses within their estates, and whose other lands are tolerably improved, attempt an improvement of their mosses, and thus increase the value of their own estates, and the riches of the country? Especially since the improvement of moss is cheaper and more advantageous than of many other grounds (as has been already shewed): since moss rightly prepared is the best soil for bearing all sorts of lint, courser and finer; and since this kind of agriculture would be so useful in civilizing the Highlands. At any rate, if we shall improve our mosses for producing grain, we may give time to our other grounds to rest: as these fields are worn out by constant tillage, and yield such poor crops, this is one great cause of the poverty of the country: but, by giving them time to rest, we shall have much better pasturage, by which, and by plentiful crops of potatoes in our mosses, which they are very capable to yield, we shall be able to feed and fatten many more cattle; and thus, in a short time, be able to change that poor diet of oat meal, on which

which so many of our people live, and feed them as easily with butter and cheefe, beef and pork, which will render them stronger for labour \*.

WHAT pity therefore that such an useful attempt should not be effectually pursued, and that Mr. *Græme* should not meet with all due encouragement! I look upon him as a great benefactor to the country: what can be of greater benefit than to drain our bogs and marshes, improve our barren grounds, and by various experiments, made at his own expence and risk, teach us right methods of agriculture. He hath invented a new scheme, and brought it to such perfection as leaves no bad examples to be followed; this is of no small advantage in husbandry, as bad methods have been greatly prejudicial to agriculture, and the commons of every country are too apt to follow even the bad examples of their forefathers: at the same time, others will

\* Nothing puts flesh more quickly on hogs and bullocks than boiled potatoes, with a handful of oats, broken in the mill. An acre well dressed and planted with potatoes, will yield 30 bolls, which will fatten 30 hogs: a crop of potatoes meliorates the ground, and is one of the richest crops our soil can yield.

will be able to do the same, nay much greater things than he has done, at much less expence. When he entered upon this undertaking, of raising good grain and lint from our deep mofses, he met with many discouragements; particularly from want of hands. 'Tis natural for the commons in every country to adhere strictly to the customs of their forefathers, and to despise all new improvements. It was not without great trouble and expence, that he could at first engage them to work for him and follow his directions. They begin now to conceive better hopes of his design, and to be more easily managed. However, he is still put to much trouble, and is at great loss for want of hands; his workmen too often leave him, when they can get other business to which they have been more accustomed; they desert him at improper times; when he stands most in need of their labour, they would force him to heighten their wages. What pity the public should not fall on some method to support him, and enable him to carry on his useful undertaking more easily!

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THUS Sir, I have complied with your desire, and given you my sentiments of Mr. *Græme's* improvements of the deep moſſes in this part of the country. I can assure you further, that these are not my sentiments alone, but the sentiments of a great many in this neighbourhood; and that they are prevailing every day. The good appearances of his fields this season have convinced many\*.

And that you may not rest solely on my opinion, I shall conclude this letter with two papers subscribed by some gentlemen in the shires of *Perth* and *Stirling*, by which you will see the opinion of several who are well skilled in agriculture: and as the gentlemen of this county, at their quarter session, have lately appointed a committee of their number to visit these fields and improvements, and to report their opinion; I have no doubt but you will soon see the advantages of Mr. *Græme's* undertaking attested in a more public manner. I am,

S I R,

*Your most humble servant.*STIRLING, *May 1.*

1754.

\* The appearances at present are much better than in the preceding years: no fields within three miles look so well.

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October 2d, 1753.

COPY of a Letter and Memorial to the Trustees of the Linen Manufactures; from some Gentlemen of *Perth-shire* and *Stirling-shire*.

WE, whose names and designations are under-written, gentlemen of the west end of the shires of *Stirling* and *Perth*; considering the advertisements published in the *Caledonian Mercury*, and *Edinburgh Evening Courant*, by the trustees for encouraging the linen manufactures in *Scotland*, inviting people to give their opinions anent improving the Highlands, raising flax therein, and spinning and manufacturing that flax; and as we have often considered those points, and are fond to contribute as far as in us lies to so good purposes, we offer the following considerations upon that subject;

FIRST, That restraining theft and idleness is most essential, in which many good methods are now used, and seem in a fair way to cure those distempers: but this  
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of itself wont do the business. The country is poor, and the people have nothing to do. At the same time that theft and idleness is discouraged, something must be held out for them to do, some employment by which they can get bread: the one facilitates the other; giving them some profitable employment, withdraws them from stealing; and punishing theft, forces them to that employment put in their hands.

THE people near the sea-side may be employed in fishings very profitably: but the inland countries, by far the most extensive, must be managed another way; they have few fields fit for much husbandry, and as few cattle fit for labour, or food to maintain the labouring cattle; and therefore any husbandry that would require much stocking or labouring cattle, would, from the above reasons, be very slow in its progress, and very uncertain in its success.

THIS naturally leads us to mention a novelty in husbandry, lately begun in this corner of the country; the labouring and cultivating moss with few or no labouring cattle, doing mostly by men, as cheap, if not cheaper, than most other soils are laboured with cattle.

cattle. But before entering upon this method of husbandry, let us suppose, that the extensive mosses so frequent over *Scotland*, were in measure equal to a tenth part of the arable ground in the kingdom; what an addition would that make to the wealth and industry of *North-Britain*, what hands would it employ, and how many mouths would it furnish bread to, if it could produce good grain, instead of yielding nothing! But for the Highlands, they have little other soil in most places; only hills, with mossy vales at the bottoms: if those mossy vales, at the bottoms of the hills, could be cultivated, so as to produce good flax and potatoes; it would give bread and employment to most of the Highlands at once.

Now, after this supposition, to resume the moss husbandry, Mr. *Græme* of *Argomrey*, one of the Justices of the Peace of the county of *Stirling*, is the man that has begun and carried on this husbandry for a few very wet years, and stood the railery and ridicule of most of the country for so whimsical an attempt. Few people would give it the countenance to go and look at it; as novelties are always run down at first, and the weather



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weather very unfavourable for people to creep into those wet fields; but, now that there has been a pretty dry season, we have reviewed these bogs and that husbandry which we were prejudiced against, or had no opinion of its success, and have been surprised as much as we can express, and which nothing but seeing with deliberation could have convinced us of. We have seen large fields of fine barley and bear, in the quality of the pickle, exceeding any we have seen this season; that most of those fields, except two, we estimate at eight bolls the acre, and think that few of them could be under seven bolls; and strong rank lint, which is most wanted in the country, samples whereof, with the affidavits of its growing on the moss, we herewith send to the trustees, as also samples of the barley and bear: and are convinced, by conversation with Mr. *Graeme*, that these mosses can yield flax of any quality, by varying the method of dressing the soil, and chusing the seed for coarse or fine lint; tho' it would be too tedious here to demonstrate these points; and all this upon moss, ten and twelve feet deep.

ALSO

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ALSO potatoes, exceeding good, planted, hood, and raised with his small breast-plough; and this seems a better and more frugal method of dressing potatoes, than any way used in this country. There was wheat upon these fields last year, very good in the pickle, but thin and unequal, from being late sown. Now we see large fields of wheat, early sown, well dressed, pretty thick and rank, before winter; and by his methods of plowing it down and rolling often, we make no doubt of its standing the winter: and also of the rape, which is pretty rank and strong just now, and planted with the plough; tho' we do not know much of rape, or use it, in this country.

IN short, his instruments and methods of husbandry are as different from the common husbandry of the country, as his soil is from the dry fields; but exceedingly well adapted for their uses, and will in time, some of them, be used in all good husbandry: only new things are too often the subject of ridicule and prejudices, too slow of being conquered. But after some deliberation, we look upon it as a solid improvement, the most just husbandry, and of the greatest national concern

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concern, of any thing we have yet seen; when it is considered what a proportion of *Scotland* lies useless for want of that husbandry and culture; *2dly*, how it would spread good husbandry over many places of the kingdom; and, *lastly*, how it could cultivate and improve the Highlands quickly, without much expence.

THESE mossy vales at the bottoms of the hills, we are convinced, might produce good flax, and good potatoes. By Mr. *Græme's* husbandry, a man, with his pairing plough, can easily pair an acre in ten or twelve days; next burns it; then spreads the ashes; and then plows it with his new breast-plough, without cattle; and, where cattle can go, two Highland shelties can do it. An acre thus drest in flax, is bread and employment for a family, the year round.

THE Highland estates now annexed to the Crown, could also be improved in this manner; and, we truly think, can be improved in no other way, tho' double the expence were employed: yet to explain and demonstrate all this, would swell to too great a length.

WE

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WE wont be surpris'd, if the trustees cannot be convinced of all this at the first: but we would earnestly recommend it to them to send out some person or persons, whose judgment they can trust, to look over these fields, and to converse with Mr. *Græme* on the spot, deliberately, not in a hurry; and the same chain of thought will steal upon them, like a demonstration, after what they see, and the prejudice against novelties wears off. *2dly*, We would recommend it to the trustees, to have conversation with Mr. *Græme* upon that subject of raising flax in the Highlands; which we take to be an essential point for cultivating and improving the Highlands, or introducing the manufactures there.

WE would have been wanting to ourselves and our country, if we had not taken this method of informing the trustees of what we think so essential to the good of the country, when they call upon us to do it, and when it is a thing that lies hid from the rest of the kingdom, and is only yet known in this corner, and where too it has been much misrepresented by some that never saw it, from prejudices

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and other causes: but when the trustees have been better informed, by sending people to look to those fields, and that husbandry; we make no doubt, they will take proper methods to make it better known, and to profit from it.

WE think if Mr. *Græme* were countenanced in so laudable a thing, (which he has brought to so great a length) by getting a few of the troops to work at it; all the nation might profit from it in some way or other, but more particularly the Highlands, as is already hinted. (*Sic sub.*)

THOMAS GRÆME of *Duchray*, J. P.

JAMES FAIRFOULL of *Braindam*, J. P.

JOHN BUCHANAN of *Glins*, J. P.

JOHN CAMPBELL of *Kilpint*, J. P.

JOHN STIRLING of *Garden*.

GEORGE MONTGOMERY-MOIR of *Leckie*.

JOHN CALLENDER of *Craigforth*, J. P.

DAVID GRÆME of *Meiklewood*.

We

January 1754.

We whose names and designations are under-written, Gentlemen of the west ends of the shires of *Perth* and *Stirling*, having seriously and deliberately considered the improvements of the mosses on the banks of the river *Forth*:

I. WE are of opinion, that it is the most solid improvement, of the greatest consequence to the whole nation, and the cheapest husbandry, of any we have seen; for, after examining fully the whole procedure, we find an acre of it can be effectually dressed for forty shillings *Sterling*, to produce as good barley as we have seen upon any soil, particularly in the quality of the grain.

II. Now when we consider and compare our own expence upon our outfield grounds, that yield three crops of oats in six years; if we are to bring those fields into barley, in the clay grounds, we give five chalders of lime to the acre, or thereby; earth it well,  
fully

fully thicker than the moss is done, and give it dung also with several plowings. In the dry fields, or lighter soils, we give the same management, only less lime, about three chalders to an acre; and we have no better barley, than we have seen upon the moss, and frequently worse. When we compare our expence with that of working the moss, we find it near double the charge; which we are sensible of after a strict examination into the moss expence by the workmen, and what they can now undertake acres for.

III. THE common and obvious objection to this is, that our grounds, after they are so dressed, will last longer than the moss: but this, we are also of opinion, is without foundation, built upon prejudice and mistakes; as our grounds, after this course of husbandry, must be kept in a constant succession of barley, oats, and pease, with a repetition of earth and dung every third year or so; otherways they will not hold out to any advantage. Now, give the moss a refreshment of earth and ashes every third year, and we are sincerely of opinion, it will not only hold out longer, but improve every year by the advantage of the tillage and earth rotting the moss into a loamy black

black mould: besides, this husbandry of a little earth and ashes every third year, is attended with no great expence; as these materials are every where at hand, and two small shelties will plow it with ease; or a man, if the weather is wet.

In short, we seriously and truly think it is the greatest improvement that ever was attempted in this country, at least in our time, and that it is a cheaper husbandry than any of the soils around us can admit of; and, in that view, is of the greatest consequence, considering what quantity of those barren fields are to be met with in *Scotland*: tho' we admit, that it may have cost Mr. *Græme* more money at first, than the above computation, from his trying different experiments, and from the untractable nature of the country people, in working a new soil, and following methods of husbandry, that they never saw practised before, when they had no faith in either, and were greatly prejudiced against both.

JOHN CAMPBELL of *Kinpunt*.

JOHN STIRLING of *Garden*.

JOHN BUCHANAN of *Glins*.

GEORGE MONTGOMERY MOIR of *Leckie*.

JOHN

