

De re rustical [On Agriculture]

Marcus Terentius Varro

Concerning the Equipement of a Farm

I.17. I have spoken of the four points of husbandry which relate to the land to be cultivated and also of those other four points which have to do with the outside relations of that land: now I will speak of those things which pertain to the cultivation of the land. Some divide this subject into two parts, men and those assistants to men without which agriculture cannot be carried on. Others divide it into three parts, the instruments of agriculture which are articulate, inarticulate and mute: the articulate being the servants, the inarticulate the draught animals, and the mute being the wagons and other such implements.

All men carry on agriculture by means of slaves or freemen or both. The freemen who cultivate the land do so either on their own account, as do many poor people with the aid of their own children, or for wages, as when the heaviest farm operations, like the vintage and the harvest, are accomplished with the aid of hired freemen: in which class may be included those bond servants whom our ancestors called *obaerati* [those who work off a debt by labor], a class which may still be found in Asia, in Egypt and in Illyricum. With respect to the use of freemen in agriculture, my own opinion is that it is more profitable to use hired hands than one's own slaves in cultivating unhealthy lands, and, even where the country is salubrious, they are to be preferred for the heaviest kind of farm work, such as harvesting and storing grapes and corn. Cassius has this to say on the subject: 'Select for farm hands those who are fitted for heavy labour, who are not less than twenty-two years of age and have some aptitude for agriculture, which can be ascertained by trying them on several tasks and by enquiring as to what they did for their former master.' Slaves should be neither timid nor overconfident. The foreman should have some little education, a good disposition and economical habits, and it is better that they should be somewhat older than the hands, for then they will be listened to with more respect than if they were boys. It is most important to choose as foremen those who are experienced in agricultural work, for they should not merely give orders but lend a hand at the work, so that the labourers may learn by imitation and may also appreciate that it is greater knowledge and skill which entitles the foreman to command. The foreman should never be authorized to enforce his discipline with the whip if he can accomplish his result with words.

Avoid having many slaves of the same nation, for this gives rise to domestic rows.

The foremen will work more cheerfully if rewards are offered them, and particularly pains must be taken to see that they have some property of their own, and that they marry wives among their fellow servants, who may bear them children, something which will make them more steady and attach them to the place. On account of such relationships families of Epirote slaves are esteemed the best and command the highest prices.

Marks of consideration by the master will go far in giving happiness to your hands: as, for instance, by asking the opinion of those of them who have done good work, as to how the work ought to be done, which has the effect of making them think less that they are looked down upon and encourages them to believe that they are held in some estimation by the master.

Those slaves who are most attentive to their work should be treated more liberally either in respect of food or clothes, or in holidays, or by giving them permission to graze some cattle of their own on the place, or something of that kind. Such liberality tempers the effect of a harsh order or a heavy punishment and restores the slaves' good will and kindly feeling towards their master.

I.18. On the subject of the number of slaves one will require for operating a farm, Cato lays down the two measures of the extent of the farm and the kind of farming to be carried on. Writing about the cultivation of olives and vines he gives these formulas, viz.:

For carrying on an olive farm of two hundred and forty *jugera*, thirteen slaves are necessary, to-wit: an overseer, a housekeeper, five labourers, three teamsters, an ass driver, a swineherd and a shepherd: for carrying on a vineyard of one hundred *jugera*, fifteen slaves are necessary, to-wit: an overseer, a housekeeper, ten labourers, a teamster, an ass driver and a swineherd.

On the other hand, Saserna says that one man is enough for every eight *jugera*, as a man should cultivate that much land in forty-five days: for while one man can cultivate a *jugerum* in four days, yet he allows thirteen days extra for the entire eight *jugera* to provide against the chance of bad weather, the illness or idleness of the labourer and the indulgence of the master.

Neither of these writers has given us an adequate rule. For if Cato intended, as he doubtless did, that we should add to or subtract from what he prescribes in proportion as our farm is of greater or less extent than that he describes, he should have excluded the overseer and the housekeeper from his enumeration. If you cultivate less than two hundred and forty *jugera* of olives you cannot get along with less than one overseer, while if you cultivate twice or more as much land you will not require two or three overseers. It is the number of labourers and teamsters only which must be added to or diminished in proportion to the size of the farm: and this applies only if the land is all of the same character, for if part of it is of a kind which cannot be ploughed, as for example very rocky, or on a steep hillside, there is that much less necessity for teams and teamsters. I pass over the fact that Cato's example of a farm of two hundred and forty *jugera* is neither a fair nor a comparable unit. The true unit for comparison of farms is a *centuria*, which contains two hundred *jugera*, but if one deducts forty *jugera*, or one-sixth, from Cato's two hundred and forty *jugera*, I do not see how in applying this rule one can deduct also one-sixth of his thirteen slaves; or, even if we leave out the overseer and the housekeeper, how one can deduct one-sixth of eleven slaves. Again, Cato says that one should have fifteen slaves for one hundred *jugera* of vineyard, but suppose one had a *centuria* half in vines and half in olives, then, according to Cato's rule, one would require two overseers and two housekeepers, which is absurd. Wherefore it is necessary to find another measure than Cato's for determining the number of slaves, and I myself think better of Saserna's rule, which is that for each *jugerum* it suffices to provide four days work of one hand. Yet, if this was a good rule on Saserna's farm in Gaul, it might not apply on a mountain farm in Liguria. In fine you will best determine what number of slaves and what other equipment you will require if you diligently consider three things, that is to say, what kind of farms are there in your neighbourhood, how large are they, and how many hands are engaged in cultivating them, and you should add to or subtract from that number in proportion as you take up more or less work. For nature gave us two schools of agriculture, which are experience and imitation. The most ancient farmers established many principles by experiment and their descendants for the most part have simply imitated them. We should do both these things: imitate others and on our own account make experiments, following always some principle, not chance: thus we might work our trees

deeper or not so deep as others do to see what the effect would be. It was with such intelligent curiosity that some farmers first cultivated their vines a second and a third time and deferred grafting the figs from spring to summer.

Here, much later in the treatise, the discussion turns to *pastores*, those who tend livestock.

II.10. As he glanced around to see if he had overlooked anything, I remarked: "Your silence gives the cue to another actor; for the remaining scene in this act concerns the number and kind of herdsmen to be kept." Whereupon Cossinius: "For herds of larger cattle older men, for the smaller even boys; but in both cases those who range the trails should be sturdier than those on the farm who go back to the steading every day. Thus, on the range you may see young men, usually armed, while on the farm not only boys but even girls tend the flocks. The herdsmen should be required to stay on the range the entire day and have the herds feed together; but, on the other hand, to spend the night each with his own herd. They should all be under one herd-master; he should preferably be older than the rest and more experienced, as the other herdsmen will be more disposed to take orders from one who surpasses them in both age and knowledge. Still, he should not be so much older that his age will prevent him from being as able to stand hard work; for neither old men nor boys can easily endure the hardships of the trail and the steepness and roughness of the mountains — all of which must be encountered by those who follow the herd, and especially herds of cattle and oats, which like cliffs and woods for pasturage. The men chosen for this work should be of a sturdy sort, swift, nimble, with supple limbs; men who can not only follow the herd but can also protect it from beasts and robbers, who can lift loads to the backs of pack animals, who can dash out, and who can hurl the javelin. It is not every people that is fitted for herding; thus neither a Bastulan nor a Turdulan (Inhabitants of the Baetic Province in Southern Spain, modern Andalusia) is suited, while Gauls are admirably adapted, especially for draught cattle. In the matter of purchase there are some six methods of acquiring a legitimate title: by legal inheritance; by receiving, in due form, through mancipation¹ from one who had a legal right to transfer; by legal cession,² from one who had the right to cede, and that at the proper time; by right of possession;³ by purchase at auction from war-booty; and lastly by official sale among other property or in confiscated property.⁴ In the purchase of slaves, it is customary for the *peculium*⁵ to go with the slave, unless

¹ *Mancipium* was the most formal act of purchase. In the presence of six Roman citizens of full age, the purchaser laid his hand on the object purchased (here the slave), asserted his owner-ship, struck with a piece of money the scale held by one of the witnesses (*per aes et libram*), and gave the coin to the seller. See Gaius, *Inst.*, I.119.

² A legal fiction, in which the owner (*dominus qui cessit*) and the prospective purchaser (*cui cedebatur*) appeared before the magistrate (*qui addixit*). The purchaser claimed the object as his own; the magistrate asked the owner if he had any defence; and when he replied that he had none, the magistrate adjudged the object to the claimant. See Gaius, *Inst.*, I.2.

³ *Usucapio* is unchallenged possession for one year in the case of movable property, for two years in the case of immovable property. See Gaius, *Inst.*, II.41.

⁴ *Sectio* is the official term for the sale at auction of confiscated property, e.g. the property of a person who had been proscribed.

⁵ Slaves were not only employed in the usual domestic offices and in the labours of the field, but also as factors or agents for their masters in the management of business, and as mechanics, artisans, and in every branch of industry. It may easily be conceived that under these circumstances, especially as they were often entrusted with property to a large amount, there must have arisen a practice of allowing the slave to consider part of his gains as his own: this was his *peculium*, a term also applicable to such acquisitions of a *filiusfamilias* as his father allowed him to consider as his own. According to strict law, the *peculium* was the property of the master, but according to usage it was considered to be the property of the slave. Sometimes it was agreed between master and slave, that the slave should purchase his freedom with his *peculium* when it amounted to a certain sum (Tacit. Ann. XIV.42, and the note of

it is expressly excepted; and for a guarantee to be given that he is sound and has not committed thefts or damage; or, if the transfer is not by mancipation, double the amount is guaranteed, or merely the purchase price, if this be agreed on. They should eat during the day apart, each with his own herd, but in the evening all those who are under one head-herdsman should eat together. The head-herdsman is to see that all equipment needed for the animals and herdsmen, and especially for sustenance of the men and the treatment of the cattle, shall accompany them; for which purpose owners keep pack animals, in some cases mares, in others any animal instead, which can carry a load on its back.

"As to the breeding of herdsmen; it is a simple matter in the case of those who stay all the time on the farm, as they have a female fellow-slave in the steading, and the Venus of herdsmen looks no farther than this. But in the case of those who tend the herds in mountain valleys and wooded lands, and keep off the rains not by the roof of the steading but by makeshift huts, many have thought that it was advisable to send along women to follow the herds, prepare food for the herdsmen, and make them more diligent. Such women should, however, be strong and not ill-looking. In many places they are not inferior to the men at work, as may be seen here and there in Illyricum, being able either to tend the herd, or carry firewood and cook the food, or to keep things in order in their huts. As to feeding their young, I merely remark that in most cases they suckle them as well as bear them." At the same time, turning to me, he said: "As I have heard you say that you, when you were in Liburnia, saw mothers carrying logs and children at the breast at the same time, sometimes one, sometimes two; showing that our newly-delivered women, who lie for days under their mosquito-nets, are worthless and contemptible." "It is quite true," I replied; "and in Illyricum I have seen something even more remarkable: for it often happens there that a pregnant woman, when her time has come, steps aside a little way from her work, bears her child there, and brings it back so soon that you would say she had not borne it but found it. They have also another remarkable practice: their custom does not refuse to allow women, often as much as twenty years old (and they call them *virgines*, too), before marriage to mate with any man they please, to wander around by themselves, and to bear children." (Cossinius resumes) "All directions for caring for the health of human beings and cattle, and all sicknesses which can be treated without the aid of a physician, the head-herdsman should keep in writing. For one who does not know his letters is not fit for the place, because he cannot possibly keep his master's cattle accounts correctly. The number of herdsmen is determined differently, some having a smaller, some a larger number. My own practice is to have a herdsman to every eighty wool-bearing sheep, while Atticus has one to every hundred. If flocks of sheep are very large (and some people have as many as 1000) you can decrease the number of shepherds more easily than you can in smaller flocks, such as those of Atticus and mine. My own flocks contain 700, and yours, I think, had 800; but still you had one tenth of them rams, as I do. Two men are needed for a herd of fifty mares, and each of these should

Lipsius). If a slave was manumitted by the owner in his lifetime, the *peculium* was considered to be given together with *libertas*, unless it was expressly retained (Dig. 15 tit. 1 s53, de Peculio). Transactions of borrowing and lending could take place between the master and slave with respect to the *peculium*, though no right of action arose on either side out of such dealings, conformably to a general principle of Roman Law (Gaius, IV.78). If after the slave's manumission, the master paid him a debt which had arisen in the manner above mentioned, he could not recover it (Dig. 12 tit. 6 s64). In case of the claim of creditors on the slave's *peculium*, the debt of the slave to the master was first taken into account, and deducted from the *peculium*. So far was the law modified, that in the case of *naturales obligationes*, as the Romans called them, between master and slave, a *fidejussor* could be bound for a slave; and he could also be bound, if the creditor was an extraneous (from the entry, "servus," in *A Dictionary of Roman Antiquities* by William Smith, 1875).

certainly have for his use a mare which has been broken to the saddle, in those districts where it is customary for the mares to be rounded up and driven to stalls, as is frequently true in Apulia and Lucania.

[Translation by W. D. Hooper and H. B. Ash, 1934]