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The Roman Farmer and the Moon

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V. — *The Roman Farmer and the Moon*

BY PROFESSOR EUGENE TAVENNER

MIDDLE TENNESSEE NORMAL SCHOOL

To a city dweller both the glory and the practical value of a full moon are unknown; but for him who dwells in the country, where the darkness of a moonless night is relieved by no brighter light than that of a lantern swinging by his side, the case is entirely different. For the latter the moon, as she journeys from her thinnest crescent to her fullest orb, and then gradually wanes to the time of her disappearance, is an object of wonder, of pleasant anticipation, of aesthetic pleasure, and of practical value.

It was thus also with the Roman farmer. Long before the days when Latin literature began to furnish some reflection of early Italian life, the Roman farmer had made the rotation of the moon the basis of his calendar,<sup>1</sup> and had perfected a rough and ready almanac which gave all sorts of information about planting, harvesting, and other farm activities to be performed during certain phases of the moon. Most of this moon lore never found expression in books, but enough of it has been preserved in extant Latin literature<sup>2</sup> to prove that the Roman farmer was very much like his modern descendant. He planted and reaped, he dug his ditches, he cut his stove wood, he set his hens, he sheared his sheep, and had his hair cut according to the moon.<sup>3</sup> It is, therefore, to this interesting side of Roman life that I wish to direct your attention.

Foremost among agricultural interests is, of course, the success of crops. We shall therefore consider first the in-

<sup>1</sup> Cf. *Cambridge Companion to Latin Studies*,<sup>2</sup> 92.

<sup>2</sup> The author regrets that he has not had the opportunity to collect similar archaeological material.

<sup>3</sup> The Roman farmer had also many folk-remedies for physical ailments, in which the moon was prominent, but as these were common both to city and rural districts, I shall not discuss them in this paper.

fluence of the moon upon planting and harvesting. Both Greek and Roman farmers believed that the moon was the cause of the heavy dews so beneficial to their crops.<sup>4</sup> As a result of this belief the idea became current that the new moon was accompanied by only a slight deposit of dew, which gradually increased in amount, until the maximum was reached at the time of the full moon. It was only a short step to the general idea that not only crops, the growth of which was really influenced by the amount of dew, but many other sublunary objects were influenced in their growth and decay by the moon.

The general rule is laid down by Palladius<sup>5</sup> that "all planting should be done when the moon is increasing." To be more specific, we are told by Columella<sup>6</sup> that beans should be planted carefully on the fifteenth day after the new moon, in case the moon was not on the wane at that time; otherwise, on the fourteenth day with the moon still increasing. In another passage<sup>7</sup> the same agricultural authority directs that beans be sowed the day before the full moon, or on the very day of the full moon. Lentils, too,<sup>8</sup> "should be planted before the twelfth day of the moon," that is, during the increasing moon, "to insure quick germination and growth." "It is popularly believed," writes Pliny,<sup>9</sup> "that forage crops

<sup>4</sup> For the pertinent passages cf. Roscher, *Lex.* II, 3147 ff., and *id.*, *Selene und Verwandtes*, 49 ff.

<sup>5</sup> I, 6, 12: Omnia quae seruntur crescente luna et diebus tepidis sunt serenda. Cf. Plin. *N.H.* XVIII, 321 ff.; Pall. I, 6; III, 4; XIII, 1; Roscher, *Sel. u. Verw.* 63.

<sup>6</sup> *R.R.* II, 10, 10: Sed quocumque tempore anni seretur, opera danda erit, ut quantum destinaverimus in sationem, tantum quintadecima luna, si tamen ea non transcurreret eo die solis radios, quod Graeci ἀπόκρυσσιν vocant; si minus, quartadecima utique adhuc crescente lumine spargatur.

<sup>7</sup> *R.R.* XI, 2, 85: Sed et proprie hoc observabis, ut pridie quam plenilunium sit; si minus, certe ipso plenilunio omnem, quam saturus es, fabam uno die spargas. For the belief that the bean, after being shelled from the pod, grew again in the pod in sympathy with the moon, see Plin. *N.H.* XVIII, 119.

<sup>8</sup> Pall. III, 4: Hoc . . . mense (*i.e.* Februario) usque ad duodecimam lunam bene seminatur, quae ut cito exeat atque grandescat.

<sup>9</sup> *N.H.* XVIII, 314: Hoc (*sc.* pabulum) silente luna seri iubent. Cf. *ib.* XVIII, 322: Umidis locis interlunio serito et circa interlunium quadruiduo.

should be sowed during the dark of the moon," and "that hot beds should be prepared during the light of the moon"; or, as the Latin has it,<sup>10</sup> *cum luna supra terram sit*.

Trees also were planted according to the moon. Cato advises<sup>11</sup> that "fig, apple, olive, and pear trees, as well as vines, should be planted in the dark of the moon (*luna silente*) in the afternoon, when there is no south wind blowing." This passage appears to be cited by Pliny,<sup>12</sup> though some editors have changed Cato's *luna silente* to *luna sitiente* in the Pliny passage. Reeds, according to popular custom, were planted with both hands while the moon was increasing.<sup>13</sup> Columella lays down the general rule<sup>14</sup> that "all trees should be planted when the moon is increasing and when the buds have begun to swell"; and he especially advises<sup>15</sup> that the willow and the broom corn be planted at this time.

It will be observed that in all the passages above cited our authorities are agreed that all plants, trees, and vines should be planted either during the dark of the moon or during the increase of the moon. It seems quite apparent, therefore, that, according to the popular belief of the Roman farmers, all planting was to be done either just before the moon began to increase, or during the waxing moon. The reason is quite clear; for as the moon increases, so shall the planted crop or orchard increase. Against this uniform and easily explained practice I can cite only one conflicting passage. In the first book of the *Georgics*<sup>16</sup> Vergil tells us that the seventeenth day

<sup>10</sup> *N.H.* XVIII, 322.

<sup>11</sup> *R.R.* 40, 1: Ficos, oleas, mala, pira, vites inseri oportet luna silente post meridiem sine vento austro.

<sup>12</sup> *N.H.* XVII, 112: (Cato praecipit inseri) oleas autem et ficos per ver tantum, luna sitiente [hoc est sicca], praeterea post meridiem ac sine vento austro.

<sup>13</sup> Plin. *N.H.* XVII, 108: Id etiam religionis servant, ut luna crescente, ut calamus utraque deprimitur manu.

<sup>14</sup> *R.R.* V, 11, 2: Omnes arbores simulatque gemmas agere coeperint, luna crescente inserito (repeated, *id.*, *de Arb.* 26, 2).

<sup>15</sup> *De Arb.* 29, 1: Salicem et genistam crescente luna vere circa calendas Martias serito.

<sup>16</sup> 284: Septima post decimam felix et ponere vitem. Conington's note on

after the new moon is propitious for planting vines. This, of course, is during the waning moon, and is contrary to all the passages cited above. As the reading seems to be sound I am at a loss to explain the apparent departure from an otherwise uniformly attested custom of planting exclusively during the waxing moon or just before.

Now if the Roman farmer believed that all things planted during the increase of the moon made rapid growth, we should expect to find him harvesting his crop by the waning moon, in order that, as the moon decreased in size, so his harvested crops might go through a uniform drying or curing process without rotting. The following passages support this assumption. At a banquet given by a certain parvenu one of the guests remarked, as Horace informs us,<sup>17</sup> that "honey apples picked during the waning moon preserved a finer blush." Furthermore, writes Columella,<sup>18</sup> "if you wish to protect beans from the weevil, pick them in the dark of the moon before daylight. Then, when they have dried on the threshing floor, immediately, before the moon begins to increase, shell them, cool them, and take them to the granary." Here it is quite apparent that the dark of the moon is thought of as the remnant of the waning moon; and that, if the moon should begin to increase before the harvest was garnered, the beans would not dry successfully.

There are some vegetables, moreover, that even during

this line is: "The seventeenth, as is evident from Hesiod, Works 805, where the seventeenth follows the fifth immediately, though the work which he assigns to it is not the same as here. Of the works which Virg. assigns to the seventeenth planting is referred by Hes. to the thirteenth." Hesiod appears to follow popular tradition more closely, while Vergil follows Hesiod in days, but not in work.

<sup>17</sup> *Sat.* II, 8, 31 f.:

Post hoc me docuit melimela rubere minorem  
Ad lunam delecta.

<sup>18</sup> *R.R.* II, 10, 12: Silente luna fabam velito ante lucem. deinde cum in area exaruerit, confestim, priusquam luna incrementum capiat, excussam refrigeratamque in granarium conferto. sic condita a curculionibus erit innoxia.

their growing period may be profitably put under the restraining influence of a decreasing moon. Both Columella<sup>19</sup> and Pliny<sup>20</sup> inform us that garlic and leeks, if planted and harvested in the dark of the moon, lose much of their pungent odor, and do not scent the breath of those who eat them.

It happens, however, that in the case of some crops we do not wish them to dry or decrease after harvesting. This is especially true of grapes. It makes a difference whether you wish to preserve dried grapes or make them into wine. Concerning the former we may cite Columella<sup>21</sup> to the effect that grapes for drying are to be picked *decescente luna*. But for the wine grape Pliny is equally certain<sup>22</sup> that "it helps greatly if one picks the grapes *crecente luna*." Thus, we see, grapes for drying were to be picked when the moon was waning in order to insure proper curing, while grapes intended for wine, in order to retain their juice fully, were to be picked during the waxing moon. A similar rule was followed in picking quinces for preserving,<sup>23</sup> or garlic, or leeks.<sup>24</sup> Finally, we have a statement of Pliny which gives explicitly the Roman view of the whole matter. He writes:<sup>25</sup> "All kinds of cutting, picking, or shearing are accomplished with less damage

<sup>19</sup> R.R. XI, 3, 22: Nam sic sata (*i.e.* cum luna infra terram sit), et rursus sic recondita, existimantur neque acerrimi saporis existere, neque mandentium halitus inodorare.

<sup>20</sup> N.H. XIX, 113: Cetero ut odore careant, omnia haec iubentur seri, cum luna sub terra sit, colligi, cum in coitu.

<sup>21</sup> R.R. XII, 16, 1: Similem curam uvae desiderant, quas dulcissimi saporis albas, maximis acinis, nec spissis, luna decrescente . . . legi oportet. *Ib.* XII, 43, 2: Omnis autem uva sine noxa servari potest, si luna decrescente . . . viti detrahatur. *Ib.* XII, 43, 9: Haec sereno caelo cum iam soli rorem sustulit, quarta vel quinta hora (si modo luna decrescit, et sub terris est) modice maturae lectissimae leguntur.

<sup>22</sup> N.H. XVIII, 316: Plurimum refert si contingat crescente luna vindemiare.

<sup>23</sup> Col. R.R. XII, 45, 2: Nihil tamen certius aut melius experti sumus quam ut cydonea maturissima integra sine macula, et sereno caelo, decrescente luna, legantur. Cf. Plin. N.H. xv, 62.

<sup>24</sup> Cf. n. 20.

<sup>25</sup> N.H. XVIII, 321: Omnia quae caeduntur, carpuntur, tondentur, innocentius decrescente luna quam crescente fiunt.

during the waning moon than when the moon is on the increase."

Concerning wine-making we may note the following directions. Wine jars are to be opened only during the full moon,<sup>26</sup> apparently upon the ground that from that time on the moon would not increase further and so induce renewed fermentation. "Must should be trodden," we are told,<sup>27</sup> "when the moon is set (*sub terra*)" but "boiled at night during the dark of the moon, or in the daytime at full moon, or on other days before the rising of the moon or after its setting."<sup>28</sup> We are told also<sup>29</sup> that in order to keep grape juice from fermenting one should pick the grapes while the moon is waning and *sub terra*. Likewise the lees are to be drawn from olive oil, if we are to believe Varro,<sup>30</sup> when the moon is waning (*cum senescit luna*). In all these cases the governing thought seems to have been to avoid an increasing moon on the ground that active fermentation would be set up if these various operations were conducted during that quarter.

Lastly, so far as regards crops, we may add Pliny's advice<sup>31</sup> that grain and legumes be winnowed and stored when the moon is in her last quarter.

Not only were crops sowed and harvested by the moon's phases, but their growth was influenced and they themselves were protected by the same luminary. Gellius<sup>32</sup> quotes

<sup>26</sup> Plin. *N.H.* xiv, 135: *Aperiri (sc. dolia vini) vetant nisi sereno die, austro flante, luna plena.*

<sup>27</sup> Plin. *N.H.* xviii, 322: *Calcari musta, cum luna sub terra (sc. sit) . . . suis locis diximus.*

<sup>28</sup> Plin. *N.H.* xviii, 318: *Hoc (sc. tempus) et faeces exprimendi, hoc et defrutum coquendi silente luna noctu aut, si interdiu, plena, ceteris diebus aut ante exortum lunae aut post occasum.*

<sup>29</sup> Col. *R.R.* xii, 19, 3: *Tum observabimus decrescentem lunam.*

<sup>30</sup> *R.R.* i, 64, 1: *Cum id novissime potissimum traiciant, cum senescit luna.* Cf. n. 25.

<sup>31</sup> *N.H.* xviii, 322: *Ventilari quoque frumenta ac legumina et condi circa extremam lunam iubent.*

<sup>32</sup> xx, 8, 7: 'Id etiam,' inquit, 'multo mirandum est magis, quod apud Plutarchum in quarto in Hesiodum commentario legi: "cepe tum revirescit et congerminat decedente luna, contra autem inarescit adolescente. eam

Plutarch's commentary on Hesiod to the effect that "the onion plant grows green and throws forth shoots during the waning moon and on the contrary dries up when the moon is increasing. And the Egyptian priests say," he continues, "that this is the reason why the Pelusians do not eat the onion; because it is the only plant that goes contrary to the phases of the moon in its growth and decay." This, it is to be noted, is one of the few passages involving the growth of root crops. These, growing as they do under the ground and downward, might well be thought to find the period of the waning or sinking moon propitious to their growth. Weeds, however, were more obedient to the usual law of the moon; for if manure was spread on fields when the moon was waning,<sup>33</sup> that very fact kept the weed seeds contained therein from springing up into vigorous life, and condemned them to gradual decay and death.

The light and the dark of the moon had also their respective beneficial effects upon agricultural activities. Vines, for instance, were thought to be protected from mice and shrew-mice if only one remembered to prune them by moonlight when the moon was full and in the sign of *Leo*, *Scorpio*, *Sagittarius*, or *Taurus*.<sup>34</sup> Many seeds too could be protected from injurious grub worms by the simple method of planting them in the dark of the moon.<sup>35</sup>

Closely connected with the planting and harvesting of crops is the matter of manuring. Here too the Roman farmer showed a careful regard for the moon, as we may judge from

causam esse dicunt sacerdotes Aegyptii, cur Pelusiotae cepe non edint, quia solum olerum omnium contra lunae augmenta atque damna vices minuendi et augendi habeat contrarias.'" With this compare our own folk-beliefs regarding potato-planting, and Frazer, *Golden Bough*<sup>2</sup>, iv, 364 f.

<sup>33</sup> Col. *R.R.* II, 5, 1: Sed id nobis decrescente luna fieri placet; nam ea res herbis liberat segetes.

<sup>34</sup> Col. *de Arb.* 15: Vites . . . a soricibus aut muribus infestantur. id ne fiat plenam lunam observabimus, cum erit in signo Leonis, vel Scorpionis, vel Sagittarii, vel Tauri, et noctu ad lunam putabimus. Cf. Plin. *N.H.* xvii, 215.

<sup>35</sup> Plin. *N.H.* xviii, 158: Reliqua semina, cupressi foliis tuis si misceantur, non esse vermiculis obnoxia, nec si interlunio serantur.



the enlightening passages in Cato, Pliny, and Columella. According to the first of these authorities<sup>36</sup> manure should be hauled to the meadows and spread when the moon is dark (*luna silente*). Pliny gives the busy farmer a little greater choice of time, stating<sup>37</sup> that manure should not be handled except when the moon is waning. But even he prefers the dark of the moon (*intermenstruum*) or the period of the half-moon (*dimidia*) for such operations. Columella<sup>38</sup> agrees with Pliny that manure should be spread in the winter when the moon is decreasing, giving as his reason<sup>39</sup> that by spreading it at such a time we may kill the weed seeds contained in the manure.

These passages would seem to make a very clear case of superstitious belief based on sympathetic magic. As the moon decreases even to the point of vanishing, so the weed seeds in the manure will decay and disappear. Or the Roman farmer may have thought of it in another way, namely, that as the moon diminishes, so shall the manure gradually disintegrate and distribute its valuable constituents in the soil. Some such view would account for manure-spreading during the full moon (which is immediately to decrease), during the waning moon, and at the end of her period of waning when she has become dark.

There are two passages, however, in Columella<sup>40</sup> which direct that manure should be spread in February when the moon is increasing. The first passage runs: "Manure-

<sup>36</sup> *R.R.* 29: Id (*i.e.* stercus) . . . eveheto luna silente. Cf. *ib.* 50, 1.

<sup>37</sup> *N.H.* XVIII, 322: Stercus nisi decrescente luna ne tangito, maxime autem intermenstrua dimidiaque stercerato. Cf. *ib.* XVII, 57.

<sup>38</sup> *R.R.* II, 16, 1: Qualibet parte hiemis modicos acervos luna decrescente disponat.

<sup>39</sup> *R.R.* II, 5, 1, cited in n. 33. Cf. *Pall.* x, 12: Agri nunc stercorandi sunt . . . cum luna minuitur: quae res si servetur herbis officiet.

<sup>40</sup> *R.R.* II, 15, 9 (manure, he has been saying, ought to be spread fresh to get the best results): idque mense Februario luna crescente fieri oportere. nam ea quoque res aliquantum fœni fructum adiuvat. Cf. *ib.* II, 18, 2: Tum deinde macriora et pendula loca mense Februario luna crescente fimo iuvanda sunt.

spreading ought to be done in February during a waxing moon, for this increases the produce of the hay somewhat." Here it is apparent that the author is thinking of the manure not as a disintegrating, gradually beneficial agent, but as a substance immediately beneficial to the crop. He is not here spreading manure to kill weed seeds (and therefore applying it in the decrease of the moon), but to promote immediate growth. Hence it is to be applied in the early spring during the waxing moon.

Nor were the activities of the woodland to be neglected; for here, we may note, it made a considerable difference whether grubbing, pruning, or timber-cutting was done according to the proper phase of the moon. Even so unimportant an act as reed-cutting could be done to better advantage if one took due note of the moon.

For grubbing I am able to quote a passage from Columella,<sup>41</sup> in which we are told that "a field containing stumps is best cleared when the moon is decreasing," I suppose in order to keep the remains of the stumps from throwing up shoots.

Pruning is more frequently noticed by our literary authorities. Remembering Pliny's general direction<sup>42</sup> that "all kinds of cutting . . . are accomplished with less damage during the waning moon," we should expect to find pruning done at that time. In this we are not disappointed, for the same author writes<sup>43</sup> that "grape vines, to be fruitful, should be pruned *decescente luna*; but if one's object is to protect them from injurious animals, one should prune them during the dark of the moon (*interlunium*)."<sup>44</sup> "But," he admits, "according to another theory, grape vines should be pruned

<sup>41</sup> *R.R.* xi, 2, 52: *Silvestris ager decrescente luna utilissime extirpatur.* Cf. Cato, *R.R.* 37, 4.

<sup>42</sup> *N.H.* xviii, 321.

<sup>43</sup> *N.H.* xvii, 215: *Vitium generosarum pergulas quinquatribus putandas et, quarum servare uvas libeat, decrescente luna tradunt; quae vero interlunio sint putatae, nullis animalium obnoxias esse. alia ratione plena luna noctu tondendas, cum sit ea in Leone, Scorpione, Sagittario, Tauro, atque in totum serendas plena aut crescente utique censent.* Cf. *ib.* xv, 62.

<sup>44</sup> Cf. n. 35.

at night, during the full moon, when the moon is in the sign of the Lion, the Scorpion, the Archer, or the Bull.”<sup>45</sup> Here the general intent of the popular belief is plain. Ordinary pruning, following the general rule, is done during the waning moon, in order that the sap may tend to run down into the ground, and the vine may not bleed; whereas vines pruned during the dark of the moon are protected from noxious animals because the latter cannot see well at that time. However, we are most interested in that part of the passage which tells us that there was another and opposite theory. Not all Roman farmers had the same rules regarding the moon, and we may amuse ourselves by imagining a group of them vigorously discussing the various theories which explained just how it happened that the moon could do all these wonderful things.

We have next to consider the moon lore concerning timber-cutting. Cato, who is our earliest authority, advises<sup>46</sup> “that all timber be cut and all stumps grubbed when the moon is waning”; which agrees with the general rule laid down by Pliny, as quoted above.<sup>47</sup> The latter is even more explicit. “It makes the greatest difference,” he writes,<sup>48</sup> “whether (*sc.* timber is cut) according to the moon, and we are enjoined that it should not be cut except from the twentieth to the thirtieth day. It is universally agreed,” he continues, “that timber is felled most advantageously when the moon is in conjunction with the sun, at the time which some call

<sup>45</sup> Cf. *Col. de Arb.* 15, cited in n. 34.

<sup>46</sup> *R.R.* 31, 2: *Ulmeam, pineam, nuceam, hanc atque aliam materiem omnem cum effodies, luna decrescente eximito post meridiem* (quoted by *Plin. N.H.* xvi, 193). With this cf. *Cato, R.R.* 37, 3-4.

<sup>47</sup> *Pp.* 71-72 *supra*.

<sup>48</sup> *N.H.* xvi, 190-191: *Infinitum refert et lunaris ratio, nec nisi a xx in xxx caedi volunt. inter omnes vero convenit utilissime in coetu eius sterni, quem diem alii interlunii, alii silentis lunae appellant. sic certe Tiberius Caesar, concremato ponte naumachiario, larices ad restituendum caedi in Raetia praeфинivit. quidam dicunt ut in coetu et sub terra sit luna, quod fieri non potest nisi noctu. si competant coetus in novissimum diem brumae, illa fit aeterna materies; proxime, cum supra dictis sideribus.*

the *interlunium*, others *luna silens*. Certainly," he adds, "when a bridge used in a sham naval battle had been burned, Tiberius Caesar ordered larches to be felled in Raetia at this season for restoring it." Finally, says Pliny, "Some say that the moon should be in conjunction with the sun and set, which cannot happen except at night; and if this period chances to coincide with the winter solstice, timber cut at that time will last forever." With the first part of this passage we may compare a statement of Columella<sup>49</sup> to the effect that "timber should be cut between the twentieth and thirtieth day of the lunar month, when the moon is waning; because all timber cut at this time is judged to be free from decay."<sup>50</sup> Even reeds were thought to be better when cut by a waning moon.<sup>51</sup>

But not all the activities of the farm have to do with crops and woodland. The careful Roman farmer consulted the moon when he dug his ditches, when he set his hens, when he sheared his sheep, and when he had his hair cut. The following passages present the evidence. Pliny<sup>52</sup> advises farmers to "dig ditches at night when the moon is full." In the same passage he writes "*ova luna nova supponito*." Columella, his contemporary, is even more explicit. "One ought," he writes,<sup>53</sup> "always to take care to set eggs under a hen when the moon is waxing, from the tenth to the fifteenth day after the new moon; for not only is the sitting itself more likely to turn out well under these conditions, but one

<sup>49</sup> *R.R.* xi, 2, 11: Sed utraque melius fiunt luna decrescente ab vigesima usque in trigesimam: quoniam omnis materia sic caesa iudicatur carie non infestari.

<sup>50</sup> Cf. on timber-cutting Pall. ii, 22; xii, 15, 1; Plut. *Quaest. Conv.* iii, 10, 3; Macr. *Sat.* vii, 16; Frazer, *Golden Bough*<sup>2</sup>, iv, 365 f.; Servius, on Verg. *Geor.* i, 256.

<sup>51</sup> Plin. *N.H.* xvii, 146: (harundo) caeditur decrescente luna.

<sup>52</sup> *N.H.* xviii, 322: Scrobes luna plena noctu facito.

<sup>53</sup> *R.R.* viii, 5, 9: Semper autem, cum supponuntur ova, considerari debet ut luna crescente a decima usque ad quintamdecimam id fiat. nam et ipsa suppositio per hos fere dies est commodissima, et sic administrandum est ut rursus, cum excluduntur pulli, luna crescat.

ought to manage thus in order that the hatch may take place when the moon is again on the increase." This is perhaps the most perfect bit of sympathetic folk-magic to be found in the moon lore of the Roman farmer. What could be simpler? As the moon increases, so the embryo chick increases in the egg; and as the second moon increases, so the newly hatched chick grows prodigiously. In like manner the Roman farmer began to stuff chickens for the market at the new moon and finished the process twenty days thereafter.<sup>54</sup>

Sheep-shearing and the cutting of the farmer's own hair were under a like dispensation of the moon. Varro, in his *Res Rusticae*,<sup>55</sup> has Agrasius say: "I think that not only should those precepts (about things to be done in the waxing moon) be observed as regards shearing sheep, but I was taught by my father carefully to observe the same rule in having my own hair cut; lest by having my hair cut while the moon was waning, I should become bald." Pliny quotes this passage inaccurately, for he writes:<sup>56</sup> "Marcus Varro advises that the hair be cut after the full moon to avoid loss of hair." This agrees well with Pliny's general rule<sup>57</sup> that shearing and cutting ought to be done during a waning moon; but it is not what Varro said. Nor does it seem likely that a man who wished to preserve or even to increase his head of hair would have had it cut under the shrivelling influence of a waning moon. Even in the same passage Pliny remarks that the Emperor Tiberius always had his hair trimmed in the dark of the moon, *i.e.* at the very beginning of its waxing period. It seems likely that a young man, who disliked loquacious barbers, and who did not fear baldness, might have had his hair cut during the waning

<sup>54</sup> Col. *R.R.* VIII, 7, 4: Quae prima luna (quoniam id quoque custodiendum est) saginari coepta, vigesima pergliscit.

<sup>55</sup> I, 37: 'Ego istaec,' inquit Agrasius, 'non solum in ovibus tondendis, sed in meo capillo a patre acceptum servo, ni decrescente luna tondens calvos fiam.'

<sup>56</sup> *N.H.* XVI, 194: M. Varro adversus defluvia praecipit observandum id a pleniluniis.

<sup>57</sup> Quoted *supra*, pp. 71-72.

moon in order to insure a slower growth of the new hair; whereas one who was threatened with baldness would take an opposite course.

We come finally to the management of Roman farm animals. Though many forms of animal life were thought by the Romans to increase and decrease with the moon,<sup>58</sup> none of these is characteristic of the farm. We are able, however, to cite at least one cure for swollen glands in draft animals, in which the moon is prominent. It occurs in the *de Cura Boum* of Gargilius Martialis, a veterinary authority of the third Christian century:<sup>59</sup> "For swollen glands of draft animals. Fourteen days after the new moon, early in the morning, before you bathe your hands, remove all harness from the beast, take hold of the swollen gland with the medicine finger (*digitus medicinalis*) of your left hand, and say the following words in a prayerful spirit: 'Neither doth a stone bear wool, nor hath an earthworm eyes, nor a mule a matrix.'" It is almost certain that in the mind of the writer of this passage the 'fourteenth day after the new moon' meant the beginning of the waning moon, and that the charm repeated during that period was thought much more certainly to cause the swollen gland to decrease.

A similar idea was prevalent in regard to the castration of farm animals. "Boars, bullocks, rams, and kids should be castrated during the waning moon," writes Pliny;<sup>60</sup> and Columella cites<sup>61</sup> the great Carthaginian agricultural writer, Mago, to the same effect.

<sup>58</sup> Cf. Lucil. 801 Baehrens (=1201 Marx); Gell. xx, 8, 4-7; Plin. *N.H.* II, 109-110; XXIX, 59; Manil. II, 93 ff.; Macr. *Somm. Scip.* I, 117; and in general Roscher, *Lex.* II, 3147 ff.; *id.*, *Sel. und Verw.* 64.

<sup>59</sup> XIX (ed. Schuch): Ad glandulas iumentorum. luna XIV mane antequam manus laves, iumento omnia impedimenta tollis et manus sinistrae digito medicinali de glandula adprehendis et haec dicis mente precante: 'nec lapis lanam fert, nec lumbricus oculos habet, nec mula parit utriculum.'

<sup>60</sup> *N.H.* XVIII, 322: Verres, iuencos, arietes, haedos decrescente luna castrato.

<sup>61</sup> *R.R.* VI, 26, 2 (speaking of the castration of calves): Idque facere vere vel autumno luna decrescente (Mago) praecipit.

Of our own tradition that meat should be slaughtered and salted down during certain phases of the moon, I have found only one instance. Pliny informs us<sup>62</sup> that goat's meat, salt-cured when the moon was waning, was not attacked by worms.

This concludes our literary evidence for the moon lore of the Roman farmer. I have cited in all more than fifty passages ranging in time from Cato to Gargilius Martialis, together with a few passages from later writers, *i.e.* from the second century B.C. to 300 A.D., showing a persistent belief among Roman farmers in the influence of the moon upon various agricultural activities. That the chronological range of my sources embraces only four hundred and fifty years is not because Roman farmers of an earlier or a later period were superior to such beliefs, but rather because Roman agricultural literature begins with Cato and my examination of the subject has not gone beyond 300 A.D.

As regards the terms for the phases of the moon, we may note that the Romans used the words *nova luna* not in our more strictly correct sense of the moon in conjunction with the sun and hence invisible, but to mean, as in our popular usage, 'a crescent moon.' Other Latin terms for the moon's phases are like ours. The half moon was *luna dimidiata*, the full moon *luna plena*, the waxing moon *luna crescens*, the waning moon *luna decrescens*, while the interlunary period which we call popularly the dark of the moon was known to the Romans as the *interlunium* or the *intermenstruum*. At that time the moon was said to be *silens*.

If we seek for the underlying thought in the Roman farmer's moon lore, we shall find it exceedingly simple. It is merely this: Whatsoever you would have grow or increase, attend to during the waxing moon; whatsoever you wish to dry, or cure, or decrease without decay, attend to during the waning moon; whatsoever you would have remain unchanged, attend to during the dark of the moon.

<sup>62</sup> *N.H.* XXVIII, 264: Nullas vero teredinem sentire luna decrescente in-duratas sale.

In accordance with this system we find that one should sow seeds (p. 68, *supra*), plant reeds (69) and trees (69), pick grapes intended for wine (71), scatter manure for immediate plant growth (74), set hens (77), shear sheep, and have one's hair cut in order to avoid baldness (78), while the moon is increasing.

The waning moon was no less potent. At that time honey-apples, grapes, quinces, and pears were picked and preserved (70 f.), crops were winnowed and stored (72), lees were drawn from olive oil (72), and winter manuring was attended to (73 ff). This was also the favorable time for grubbing, pruning, reed-cutting, and timber-cutting (75 ff.). If you had your hair cut at this time, it remained well-trimmed longer (78). Swollen glands were reduced, castration performed, and meat salted down to better advantage during a waning moon (79 f.).

The perfection of the waning moon was reached when the orb became entirely dark. Then indeed was the best time to perform those farm operations where natural growth was to be inhibited, or a static condition brought about. Timber cut during this period was almost indestructible (77), manure so spread could harbor no weed seed (74), beans remained free from weevils (70), and seeds free from worms (73).

So too the light of the moon's full splendor guarded many earthly interests. For was not wine opened during the full moon protected against souring (72), and did not mice fear to gnaw at vines set out by the light of a full moon (73)? Ditches dug at night under a full moon remained undarkened and unclogged (77).

As to the origin of this moon lore of the Romans I wish to add a few words. First we may note that in the fifty or more passages cited as evidence there is not a word that even remotely suggests the worship of the moon. This is consistent with the view that the earliest Romans knew nothing whatever of moon worship.<sup>63</sup> Nor is it probable

<sup>63</sup> Cf. Roscher, *Lex. s. v. luna*; Wissowa, *Religion und Kultus der Römer*, 315 ff.



that the Roman farmer, notwithstanding the influence of Greek agricultural literature upon that of Rome, derived any great part of his moon beliefs from an external source. He would, in fact, be the last person to hear of strange beliefs introduced from foreign countries. And yet it is precisely in the rural districts of Italy, and in the writings of such anti-Greek agriculturists as Cato, that we find our evidence for belief in the power of the moon most abundant. All this evidence seems to point to the conclusion <sup>64</sup> that in ancient Italy, as in every part of the world, and at all times, the regular, mysterious changes of the moon made a very deep impression upon the untutored mind, as a result of which the waxing and the waning of the moon were connected with the growth and decay of sublunary objects. It is the mistaken conclusion that things which occur at the same time must sustain the relation of cause and effect, that like effects like, *similia similibus*. Underneath it all is the idea of *sympathia* which is the basis of a large part of magic; and from this mysterious sympathetic connection between the moon and the daily activities of the farm the Roman farmer could no more divorce his ideas of crop management and growth than can the farmer of today.

<sup>64</sup> Cf. Frazer, *Golden Bough*<sup>2</sup>, IV, 358-377.