

The JOURNAL

OF THE RUTGERS UNIVERSITY LIBRARY

Volume VI

JUNE 1943

Number 2

SOME NOTES ON THE SCRIPTORES REI RUSTICAE

By CLAYTON M. HALL

For a number of years before his death Dr. J. G. Lipman, Dean of the College of Agriculture, made a hobby of buying books on farming and gardening for the Library. We are indebted to him for several of the early editions of the classical and medieval writers which are described in the following account. Dr. Hall, the author of the article, has been a member of the Rutgers Faculty since 1925 and for some years head of the Department of Classics. He is the editor of Nicolaus of Damascus' Life of Augustus and co-editor of Two Bookes of Constancie by Justus Lipsius.

THE term *Scriptores Rei Rusticae* signifies usually a grouping of Cato, Varro, and Columella in their works on agriculture; and to these should be added, for this article, the thirteenth-century author Pietro de' Crescenzi. The Library of Rutgers University is fortunate in possessing some early editions of these writers, several of them excellent examples of German, Italian, and Polish book illustrators' art of the fifteenth and sixteenth centuries.

The word "agriculture" connotes something more extensive than a solitary man with a hoe, although such a one is none the less an agriculturist, and his calling is dignified by Horace in his first Ode, where are listed the various typical professions of his day. We should, however, bear in mind that agriculture on an extended scale was carried on in the Graeco-Roman world at the earliest period of which we have record: consider, for example, the "Harvesters Vase" from Hagia Triada in Crete, whose date may conservatively be set at 1600 B.C., and in the *Iliad* such descriptions as the field of tall



Gardening scene from Crescenzi, Krakow, 1571

grain before a strong wind, in the second book, and multiple simultaneous plowing in the eighteenth book. For many years before our records begin, there had accordingly been a background of development to take this pursuit of agriculture past the casual stage and to establish it as a major, orderly occupation.

The first technical writer on agriculture in Latin literature was Marcus Cato, 234-149 B.C., a versatile man who had had much experience in practical farming before he wrote his work *De Agricultura* when about eighty years of age. Unfortunately, his style has no literary merit, but he knows exactly what he is talking about and his statements are pleasantly definite. At the outset, the author warns us that we shall not get rich at this pursuit; nevertheless, it is highly to be recommended. Note that the same sentiment is given us in more attractive, if less forthright, guise by such familiars as Lucretius, Vergil, and Horace. Cato pays most attention to the crop from which the greatest cash return can be realized: vintage grapes. The prime rule of management is: be a seller and not a buyer—not exactly “export or die” but “import and you will be bankrupt.”

One gathers that he was a hard driver of manpower. When the days are short some operations are to be carried on under artificial light. As much work as possible must also be done on holidays. In later days, Vergil felt it necessary to list those occupations which a farmer might profitably perform on holidays without sacrilege or transgression of the law: *Georgics*, I, 268-272. In point of fact, the Roman calendar was surcharged with holidays, and they were a serious nuisance in several professions, both city and country. Students of the economic history of Rome derive much material on the maintenance charges of slave labor from Cato. A single garment every other year, a raincoat every other year, and a pair of shoes every two years is at once the minimum and maximum of equipment; food, however, was entirely adequate for the labor performed. In his list of equipment for personnel, four beds are allowed for a staff of sixteen, but since one of these was a married overseer, we must remain puzzled as to how they were apportioned.

The olive and its oil constitute the second important product in Cato's farming economy, and one may well wonder at the detail with which the necessary machinery is described. Obviously, the fruit must be pressed on the farm rather than at a central factory, for because of the slow rate of transport, it would not keep at its critical stage of

ripeness. On the other hand, the extracted oil can be held for a rising market and the best price. A press could easily be built from Cato's exact directions. The cost was about \$700, not including much material and unskilled labor supplied by the farmer himself. The specialist who shaped the working parts of the iron axle and ran in the lead caulking for the wheel of the pulping mill received \$8 for his skill. An innovation just introduced from Greece at this time was the multiple sheaved block and tackle, decreasing effort at the expense of speed.

Cato's contribution to knowledge is for us on the side of economics and sociology rather than toward present farming practice. One should note in passing that wheat thus early, 200 B.C., is not the main crop in Italy, but must have been largely imported from Africa as was the case in the Augustan Age. This lack has been a recurrent problem to the economy and government of Rome. For the English-speaking reader who may be interested in a complete view of this material, an excellent translation is that of Ernest Brehaut (Columbia University Press, 1933); while those desiring to compare editions will find in the Rutgers Library an example published by Hector of Bononia, 1504. This volume contains also Varro and Columella.

A little more than one hundred years after Cato we find another work, *De Re Rustica*, by that extraordinary man, Marcus Terentius Varro, 116-28 B.C. He had been a naval officer of high rank and later, during the Civil War, had been one of Pompey's military commanders. Those of us who deem scholarship to be a prerogative of our own time and place must be given pause when we note that in his bibliography he mentions more than fifty titles of writings on agriculture extant in his day, many of them in Greek. But he was also a practical farmer and not a compiler. He had read these books because he was interested in the subject rather than in making a primer out of them. In style, too, this work is rather disappointing. It is hard to write anything in prose near Cicero's time which will not suffer in comparison with that master. But the arrangement of the book is orderly, and the various divisions—crop farming, stock farming, large and small animals, poultry and game, fish, bees, &c.—obviously give the pattern followed by Vergil in his *Georgics*.

It is assumed that the book may be used by a man just starting in with a new site. If it is not fairly sure that he will make a profit and that he and his personnel will not be exposed to malaria, and yet

he insists upon going ahead, it is recommended that such a man be committed to legal guardians as insane. Varro does not insist that the farm be self-sufficient; the economic picture has changed since Cato's day, so that it is often profitable to purchase goods or services from without. For example, a resident doctor is considered to be an unsound financial risk; in remote sites or on enormous estates only is it necessary to have a house physician. Another noteworthy contrast appears in the change in the social outlook of the period. Here we do not sense the hard driving of Cato; the staff is not to be controlled by corporal punishment but by words of correction or encouragement; perquisites are allowed such as free grazing and fodder for a slave's own animal.

In the section on stock-breeding two items are noteworthy: one, the very considerable price commanded by blooded stock, in one case upwards of \$2,000 per animal; the other, the importance attached to the form of sale transaction: when the title was transferred, in addition to a warranty, provision was made that the new owner was not to assume liability for unsettled claims for damage caused by the cattle while they were still in the hands of their former owner. As in Vergil's *Georgics*, here also the work of the horse is limited to hunting, racing, and military and road work; he is excluded from farm labor, which is the province of the ox.

Some differentiation is already being made in the breed of dogs, as between hunting, working, and house types, for we are warned not to attempt to use hunting dogs or one from that breed, whose ancestors were used to hunting, as a shepherd's assistant. He will be attracted by the various interesting scents he will come across and follow them to the neglect of his duties. It is furthermore dangerous to allow a working dog to eat dead sheep for fear lest his self-control break down and he convert some live sheep to his own use.

A fair proportion of the latter part of the book is given over to the production of poultry and small edible birds for profit. This department, says Varro, can be developed by a skillful manager to such an extent that in a small space of ground surrounding the villa a greater income can be realized than from all the acres of the farm; in one attested case it amounted to \$2,400 annually. Of course, to realize this, a market is necessary, and this in turn depends upon luxurious living in a city somewhere near at hand. Though thrushes constitute hardly a mouthful apiece, they fetched about the price of

squabs with us, and were in far greater numerical demand than squabs because of their small size. Many readers will recall the part played by thrushes in the dinner party of the parvenu Trimalchio in Petronius' novel of the time of Nero, the *Satyricon*. It is interesting to see



CRESCENZI, SPEIER, 1490

1. *Transferring wine from
cask to cask*

that production of this luxurious and expensive article of diet was already well established in Cicero's day, and it sounds rather a far cry from Cato and his rigidly puritanical economy.

When we come to Columella, who flourished in the first century of our era, we find a much more facile style than either of the earlier men gives us. He is from Spain, whence several of the outstanding literary men of the empire came; as time passed, such figures were

found progressively farther away from Rome. There is more material in Columella than in either of the others. Some scholars therefore look askance at it, believing that it is the result of compilation only and not of experience, but there is in fact sufficient internal evidence to show his practical authority.

Near the beginning he makes two cogent observations about the tentative site and design for the villa. First, you ought to be near a road, and a good one at that. With the added refinements of the em-



CRESCENZI, VENICE, 1511

2. *Threshing*

pire, it seems that people were becoming more road-conscious. Again, in the planning of the house, care must be taken that it be pleasing to your wife; otherwise she won't want to live in the country at all, and it is desirable that she should. The practice of tenant-farming is here well established, where the tenant actually makes a cash payment for the use of the land. The owner is advised not to press too keenly for the fee on the very day appointed. These tenants are entirely distinct from the farm hands working for the owner, and in this latter class we are to note that some of them still work in chains.

There is a good chapter on dogs as an economic necessity about the farm, expressly excluding hunting dogs. The house or watch dog should not be parti-colored, but preferably all black, for then he can sneak up more safely on the thief who comes by night than the thief

can sneak up on him; and in the daytime a snarling black beast is a much more fearsome sight than one of another color. The shepherd's dog, on the other hand, should be all white, for if wolves come about dawn or dusk, and the shepherd tries to help his dog by smashing at the wolves with his club, he may well club his dog by mistake unless the dog's livery is distinct from that of his enemies.

In the engrossing chapter on poultry, our author has but a low opinion of Rhode Island stock, a name which startles one at first



CRESCENZI, VENICE, 1511

3. *Cooper's Shop*

glance, separated as it is from our own Rhode Island by a hemisphere. He is at some pains to point out that an income from eggs is in the long run a surer thing than bets on cock fights; in the latter case, a man is sure to appear one day with better birds than your own, when you will lose not only your recent gains but all your patrimony as well. We find attempts, even at this period of the world, to hold such perishable goods as eggs for the market. Salt is the preservative recommended, but the sad conclusion is reached that the integrity of the eggs suffers so much in the process that the buyer is deterred altogether. The price of thrushes for eating is now a guaranteed thing at nearly a dollar each, so that we need not wait for the great state dinners of the past in order to make a sale, for the daily market will take care of it.

It would be well to keep in mind the part played by honey in the Graeco-Roman dietary economy as the sole form of sweetening, and hence the amount of space given the subject of bee-keeping by both Vergil and Columella. Our author admires Vergil's treatment of it in his fourth *Georgic*, and quotes it freely. As one might naturally expect, to Columella the queen bee is a king bee. This misconception is



CRESCENZI, KRAKOW, 1571

4. *Plowing*

almost universal in the literatures of the past with one notable exception: Xenophon's *Economics*, chapter 7, mentions the queen bee twice very definitely and in an unmistakable connection, but no one seems to have followed him for a long time. Columella knew this book, too, and refers to it both in the original and in Cicero's Latin translation, the latter now lost to us.

The farm, continues Columella, should be run with a precision equal to that of an industrial concern; for example, inventory of equipment should be made fortnightly, and inspection of slaves, particularly chained ones, daily. The manager must not frequent taverns or fairs save for the purpose of selling produce.

In resolving one's impressions received from these three works, it appears that there is an economic background which undergoes a change with the passage of years, whereas both the impelling force and the general operating laws are the same throughout. We would certainly avoid taking one of these works as a handbook and setting about carrying out its instructions, even if climate and labor conditions



CRESCENZI, KRAKOW, 1571

5. *Haying*

could be approximated. When the procedure corresponds to what we know is sound, we approve; if it does not, we are amused; but all told the former instances far outnumber the latter.

For examples of the book illustrators' art of the fifteenth and sixteenth centuries, we shall turn to the work of de' Crescenzi. He was born in Bologna in 1230, and the first edition of his *Liber Ruralium Commodorum* was published in 1471 at Aosta. The earliest edition in the Rutgers Library is that of Peter Drach, Speier, 1490. The illustrations throughout this folio are about three by four inches

each, set in the columns of text. The illustration taken from fol. 45, which also recurs elsewhere in the book, shows a man transferring wine from one cask to another by means of compressed air (*see fig. 1*). Two casks are connected by a hose to their head bungs; there is a tray to catch leakage; then the operator supplies air pressure by means of a bellows to the side bung of the cask to be emptied, while the other



CRESCENZI, KRAKOW, 1571

6. *Grafting*

cask has its side bung open as a vent to atmosphere. Why should this technique be used? Because if the wine were transferred by gravity, whether by siphon or not, it would require lifting the heavy first cask above the other, or if the second cask were first brought below the level of the first one, into a pit, for example, it would have to be lifted out afterward when full. This is an ingenious labor saving device.

It is worth one's while to examine this book and identify the various plants shown, among them wheat, oats, clover, peas, grapevines on

arbors, and so on. At a cooperage works the artisan tightens hoops on a tub, while a coil of oakum caulking lies on the floor. There is a wheeled plow with adjustable main coulter and small sod-cutter, an overshot water-wheel with complete rigging, comparative architectural types such as the castle, the half timbered and stucco house, and so forth. The man who performs a graft on fol. 21 has his jacket sleeves rolled up, but the sleeves of his undershirt are long and tight.

Many of these same cuts were used in another edition of the same work, also in the Rutgers Library, by Bartholomei of Strassburg, 1512. The execution is not so crisp as in the Speier edition of 1490, but a careful comparison shows that the blocks were identical.

Then we have a fine octavo copy, Venice, 1511, in the vernacular. (The first Italian translation was made anonymously and published at Florence in 1478.) In the threshing scene shown, three men ply flails, one uses a pitchfork, a rake and a broom lie on the ground nearby, while the overseer sits in the shade on a porch with a fan in one hand and a long cool drink in the other, with his replenishing jug ready to hand, also kept with care in the shade. The scene aptly illustrates Vergil, *Georgics*, 1, 298, where we are told that threshing is to be done "medio aestu," that is, in midday's heat (*see fig. 2*). The illustration of the cooperage shop from this same edition has been used for the article on Crescenzi in the *Enciclopedia Italiana* (*see fig. 3*).

The same author appears in the Polish vernacular, printed by Stanislaw Szarffenberger, Krakow, 1571. The Rutgers copy is the only one known to the Library of Congress. In it a large cut of two columns' spread (*see frontispiece*) shows a garden enclosed by a wall and picket fence, wherein the women workers outnumber the men three to two. A left-handed man in the foreground is spading; another carries spade and hoe on his shoulder, while one woman scatters seed, another rakes a seed-bed, and the third trains some young vine-shoots about their supporting stake. In the background are some well-developed vines on tall supports and a banked-up bed of some plant such as celery. There is much charm, both in touches of detail and in perspective, in all the illustrations in this edition, including the scene of a horse-plow and an ox-plow in the same field: the appropriate hitch is shown for each team, yokes for the oxen and traces for the horses (*see fig. 4*). The traces are actually padded at the point where they might

rub and gall. Other cuts show such operations as spike-tooth harrowing, broadcasting, haying—where the driver is properly mounted on the high wheel-horse (*see fig. 5*), and grafting, with artisans in the very act of inserting slips in the stocks, a bundle of slips in the foreground, and a completed graft in the middle distance (*see fig. 6*).

There are in our library in all some sixty titles pertaining to the *Scriptores Rei Rusticae* or *Geoponici*: one, noted above, of the fifteenth century; thirty-two of the sixteenth century; and so on down to our own time. It must suffice to close with mention of a modern work, interesting and of attractive format, a monograph on poultry farming as reported by Cato, Varro, Columella, and Palladius,¹ by Alessandro Ghigi, Milan, 1939. The text of the originals and an English translation are given in parallel columns, while the book is illustrated with examples of chickens, peacocks, and so forth, in classical art now in various museums.

¹ Rutilius Taurus Aemilianus Palladius; author of a farmers' calendar, most of whose material is taken from Columella.