the U. S. Department of Agriculture have rendered citrus-fruit growers of California and Florida in solving problems of by-product disposal has led to the extension of this work to Texas, following repeated requests for such aid from fruit growers of that state. The last congress appropriated funds for the laboratory which is to be placed on the state-owned land of the Texas State Agricultural Station at Weslaco. Total plantings of citrus in Texas amount to approximately 6,650,000 trees, about half of which are now bearing. This represents an acreage of about 90,000, with grapefruit accounting for three fourths of the total.

THE department of zoology at New Jersey College for Women (the undergraduate woman's college of Rutgers University), New Brunswick, has opened, in its zoology building, a new teaching museum, occupying the room known as the Yardley Memorial Room, in memory of Mrs. Margaret Tufts Yardley, first president of the New Jersey State Federation of Women's Clubs, under whose direction the money for the building was raised, and given by the federation to the college for a hall of science. The museum, equipped with aluminum-frame cases and glass shelves, houses about half the teaching exhibits of the department of zoology. These exhibits are on display to the public, and consist of a series of some 225 mounted birds, representing the species found in New Jersey, together with about 90 skins of birds, both native and exotic; an exhibit of the hawks of the state, so placarded as to bring out their value or detriment to agriculture; a series of skeletons of typical vertebrates and of skeletal parts disarticulated; a series of preserved materials, such as human embryos, embryological series of rat and bird, typical reptilia, vertebrate brain series, human brain, head of an Egyptian mummy (probably predynastic), and miscellaneous material; some 50 anatomical models, both human and infra-human mammal structures, and preserved specimens forming a systematic collection of all phyla of animals, as well as a series of the common invertebrata and smaller vertebrata of the state. This last item numbers some 200 exhibits, and is largely divided up among the different laboratories in the building.

NATIONAL forest area in Eastern, Southern and Lake States will be increased by the purchase of 16,558 acres of forest land recently approved by the National Forest Reservation Commission, which authorized the expenditure of $52,624.82 for the purpose. The commission took recess action in order to advance the date of payment by some six months, as most of the purchases are to be made in areas affected by last year's drought or handicapped by unfavorable financial conditions and unemployment. Individual purchases approved will number 166, involving mainly small tracts. Prompt payment of cash for these holdings is expected to afford some relief to individual owners and local communities. Lands acquired will be added to existing national forest purchase units already protected and administered by the Forest Service for continuous development of forest resources and safeguarding of watershed values. More than half the proposed new purchases lie in or are contiguous to the Ozark and Ouachita National Forests in Arkansas, and 1,121 acres are in the Kiamichi forest purchase unit in Oklahoma. The Nantahala National Forest in the southern Appalachians will be increased by 1,612 acres. About 2,500 acres are to be added to other forests in the South, 389 to the White Mountain National Forest, and 1,858 to purchase units in the Lake States.

ACCORDING to the *Journal of Education* the Cuban National University, which has been closed since September, 1930, was reopened this fall under an entirely new plan which will remove it from the direct supervision of the government, according to the proposal of Dr. Carlos Miguel de Cespedes, secretary of public instruction, who is working out the details of a proposal to be submitted to Congress. The plan is to turn over all buildings and grounds now owned by the state to the university, which will become a separate organization governed by a board of directors composed of twenty-six deans and professors who were appointed to the faculty in 1900 after competitive examinations. The government will arrange an endowment of $2,000,000. The matriculation fee will be set at $200 and the government will each year purchase 1,500 scholarships to be distributed among men and women who would be otherwise financially unable to attend the university.

DISCUSSION

OESTRUS

A LETTER in SCIENCE of March 27 by Professor S. A. Asdell, of Cornell, protests the misuse of *oestrum* for *oestrus,* affirming not only that the former, since it can not be a neuter nominative, must necessarily be a masculine accusative and so entirely unjustifiable; and also affirms that Heape introduced *oestrus* into literature as a synonym for animal tumescence. Is he quite correct in either statement? If not too late, may I be permitted briefly to trace the respective histories of the terms?

Oestrus is of course the Latin transliteration of the

Greek masculine noun οἶστρος, oistros (for which the purest Latinists are perhaps wont to employ either *asilus* or *tabanus*), and is therefore itself obviously of the same gender.

The Greek word originally referred to a dipterous insect infesting cattle (probably *tabanus bovinus*) the gad- or bot-fly, and in this sense is as old as Homer. Later, Aristotle employed it of a parasite of tunny-fish, and also of a small insectivorous bird. Meanwhile, by another line of evolution, it came figuratively to signify a sting, hence something that drives one mad; frenzy, insane impulse, mad passion, etc., and is so employed by the writers of the golden period of Greece.

So far as I know, its Latin transliteration is first found in Virgil. But it is still masculine, as in Pliny.

We must now take a leap across the centuries to the learned Isidore of Seville (*c.* 600 A.D.), who, in his "Origines," is apparently the earliest writer to turn this masculine noun into a neuter. Why he did so must remain, in the absence of any evidence, inexplicable. In any case, his great reputation as a scholar apparently set a precedent for later writers. Du Cange, in his monumental "Glossarium Med. et Inf. Lat.," actually spells it oes, but refers to Isidore's *oestrum.*

Coming now to English literature, it is a fact that the neuter form has for some centuries been naturalized in our language. In 1656, for instance, S. Holland, applying the term to a flea, speaks of "defying the eagerness of those sanguine-coated *oestrums.*" In 1706, Phillips defines the "*oestrum,* or *oestrus,*" as "the gad-bee." Or Badham, in 1854, apparently recalling the zoology of Aristotle, refers to "the conduct of the poor thunny under the scourge of the sea *oestrum.*" In 1663, Butler, in the famous "Hudibras," employs the neuter figuratively. "What *oestrum,* what phrenetick mood, makes you thus lavish of your blood?"

Coming still closer to the modern physiological connotation, Jefferson, in 1782 writes as follows: "Love is the peculiar *oestrum* of the poet"; which to the present writer, at least, suggests the lines from "Locksley Hall";

In the Spring a fuller crimson comes upon the robin's breast:
In the Spring the wanton lapwing gets himself another crest;

In the Spring a livelier iris changes on the burnish'd dove;
In the Spring a young man's fancy lightly turns to thoughts of love.

We come now to its definite physiological use. The earliest example that the Philological Society of England gives is dated 1772 (*Ann. Reg.*): "The times, in which animals of different species feel the *oestrum,* [note that it is neuter and not masculine] by which they are stimulated to the propagation of their respective kinds."

It would seem, therefore, (1) that *oestrum,* as used by modern physiologists, is not intended as a masculine accusative but a neuter nominative (with no philological justification, however, but only that of "the Tradition of the Elders"): and (2) that Heape, who wrote in the second half of the nineteenth century, etc., could not have introduced the word (in either its masculine or neuter dress) as applicable to animal tumescence, inasmuch as the last quotation antedates him by practically a century, and also, intrinsically, bears indications of being a record of a connotation already familiar in England.

Since writing the above, I find that Isidore was not the first writer to employ the neuter. At the close of a discussion of *oestrus,* Facciolatus and Forcellinus, in their "Totius Latinitatis Lexicon," have the following note. "Festus facit oestrum neut. gen., nam et Graece οἶστρον." The reference is undoubtedly to Sextus Pompeius Festus, the author of twenty books, "de Verborum Significatione." While his date is uncertain, he lived at a later period than Martial (*c.* A.D. 75) and before Macrobius (*c.* 400). Isidore perhaps made use of his lexicon, and thus standardized the error.

At how early a date there began the trend towards the modern physiological use of the term may be seen from the following citation from IV Macc., a Greek work by a Jewish Alexandrian scholar about A.D. 50. "For he, a young man at the age when physical desire is strong, by his reason quenched the mad impulse (οἶστρον—masc. acc.) of his passions. . . . The temperate mind is able to conquer the dictates of the passions, and to quench the fires of wild desire (οἰστρῶν)."

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POSSIBLE SIGNIFICANCE OF THE DECREASED SUSPENSION STABILITY OF THE BLOOD

THE decrease of the suspension stability of the blood, or the increased sedimentation rate of erythrocytes during disease, has provoked an enormous amount of investigation devoted chiefly to employing this phenomenon for diagnosis and prognosis of various illnesses. The fact that red cells settle more rapidly than normally in so great a number of diseases has led many to regard this phenomenon as too