lb. linseed cake per diem. The treatment should be as liberal as to turn them out to the grass in good condition. In the following summer and autumn, they should be allowed to graze on good pasture, rich in phospates, so that their growth of bone and substance will not be checked in any way. In winter, they should again receive, in addition to turnips, hay and straw, a little extra concentrated food, such as linseed cake or cotton cake, at the rate of 2 or 3 lb. per day. If, by the treatment they have received, they be large and strong, we may have them in milk between two and three years old.

The following is from a leaflet issued by the Royal Agricultural Society of England:— From the evidence which has recently been brought to the notice of the Society, it is considered desirable to recommend to the special attention of stock-owners, in whose herds abortion has appeared, the system of preventive treatment which is described in the following quotation from the article on Abortion in the Society's Journal, Vol. II., Part IV., 1891, page 738. The plan which Professor Nocard recommends to be used in cow-sheds and premises in which epizootic abortion occurs year by year is the following:—1. Every week the places in which cows are kept must be well cleansed, and especially the part behind the cows, and then disinfected by a strong solution of sulphate of copper (blue vitriol), or a solution of carbolic acid, one to fifty of water. 2. The under part of the tail, the anus, vulva, and parts below of all the cows must be sponged daily with the following lotion which, is a strong poison:—

Rain water or distilled water ..	2 gallons
Corrosive sublimate	2½ drachms
Hydrochloric Acid	2½ ounces

During the first season of this treatment only a moderate amount of improvement is to be expected, but after the next season abortion will cease entirely. It appears that in some districts no precautions are taken to destroy the fœtues after abortion. This should be done *without delay in every case* by burning or burial in quicklime. Lime should also be freely scattered over the ground contaminated with the discharge.

EXPERIMENTS ON THE DURABILITY OF VARIOUS WOODS.

In order to obtain some data on the durability of Indian woods, the Government of India in a Circular dated the 31st October, 1879, ordered these experiments to be started. Specimens of various species were prepared, the size and shape of a metre-guage sleeper being chosen as most suitable. These were placed in the ground of the Imperial Forest School, one-half of each piece being left exposed, the other half under ground: in all 39 pieces were thus treated, most of them having been put down in 1881, and a few subsequently at different times. The soil in which the sleepers were buried was a rich sandy clay, giving, on a rough qualitative analysis made by Instructor Mr. A. F. Gradon:—

Sand	35 per cent.
Clay	24 „
Organic matter	5 „

One by one, the weaker and softer kinds disappeared, under the effects of rot and the attacks of white ants: and in August 1892, just eleven years after the commencement of the experiment, the surviving pieces were dug up by the Deputy Director, Mr. Smythies, in the presence of his class of Forest Utilization, with the following results:—

Three species had their wood still perfectly sound in every respect, both above and below ground. These were (1) the Himalayan Cypress, (*Cupressus torulosa*) 10 years buried; (2) Teak, 9 years buried; and (3) Anjan (*Hardwickai binata*) 7 years buried. Both Deodar and Sissu after 11 years' burial had their heartwood quite sound, but the sapwood has been entirely eaten away by white-ants. Next to these came the two species of Eugenia, Piaman (*Eugenia operculata*) and Jaman (*Eugenia Jambolana*) which lasted well for 9 years but are now beginning to show signs of decay. Sandan (*Ougeinia dalbergioides*) was much the same, as were also Toon (*Cedrela Toona*) and *Albizzia procera*. The Toon was almost untouched above ground, but the buried parts were unmistakably traversed by the mycelia of fungi. Sain (*Terminalia tomentosa*) and *Albizzia Lebbek* lasted 8 years; *Phyllanthus Emblica, Adina cordifolia, Cedrela serrata, Pinus excelsa* and *Abies Smithiana* remained good for 7 years and then succumbed. *Pinus longifolia* and the three oaks (*Quercus Semecarpifolia, incana* and *dilatata*) lasted 6 years. *Aegle Marmelos, Stephegyne parvifolia, Abies Webbiana* and *Schleichera trijuga* remained good for 5 years. A *Grewia* lasted for four years, while *Lagerströmia parviflora, Anogeissus latifolia, Acacia arabica, Butea frondosa, Aesculus indica* and the Mango gave way in 3 years' time. It is as well to place on record that Dehra Dún is the broad valley at the base of the Himalaya, and between it and the Siwaliks, extending from the Jumna to the Ganges. The altitude of the locality is just about 2,100 feet, the climate is moderately cool and the average annual rainfall 73 inches.

The most remarkable thing about these experiments is the durability of the Cypress, a fact which ought to be remembered in planting trees in the hills, for few trees are so easily grown, even down to the plains in the Dún and further still to Saharanpur. The wood is not unlike deodar, but with a quite different strong scent. The tree thrives best on limestone, but is not really very particular and it grows straight and well in close plantations.—*Indian Forester.*

ZOOLOGICAL NOTES FOR AGRICULTURAL STUDENTS.

Next in order after the birds come the Mammals constituting the fifth and last class of vertebrate animals. The general characteristics of mammlia are that respiration is aerial: the lungs are not connected with air-sacs; the heart is four-chambered; the blood warm; the integumentary covering is in the form of hairs, the young are nourished by milk secreted by special glands—the mammary glands; the skull has two condyles.