

will the farmer, the husbandman, rely, in the choice of an improved Breed, producing at the least cost, beef, work, wool or milk? How will he justify the choice of his implements in the large collection now offered to us by rural engineering? The best answer to these questions will be found in the definition of the husbandman "who can only observe the given rules, of which he is not bound to know the reason and connexion...."

Therefore, wherever there will be an improvement to introduce, there must be an agriculturist to suggest it... and a farmer to apply it... Afterwards when experience shall have proved it to be good, labourers will adopt it for their profit. France, Germany and England are justly proud of their agriculturists, whose well known fame and works speak highly enough of them. These scien-

tific men have already suggested to agriculture mostly all possible improvements. Therefore we only want farmers in sufficient numbers, in order that the new methods submitted to experience, should definitively enter in the agricultural practice.

But let us not be deceived; the duty of the Farmer, to be well fulfilled, requires information such as a serious study only can give.

He says Gasparin, directs the enterprise; without him, Agriculture is only an abstraction or a routine, and the country which will have the greatest number of these men, will make the most rapid improvements in the cultivation of its soil.... These are the men we have to produce!.. A glance at the following table of Agricultural studies, will give us an idea of the difficulties we have to meet.

TABLE OF AGRICULTURAL STUDIES.

A. ACCESSARY SCIENCES.

OBJECTS OF STUDY.	NAME OF TECHNOLOGICAL SCIENCE.	DERIVING FROM THE PURE SCIENCE THE NAME OF WHICH IS FOUND BELOW.
<i>1^o Cosmological Sciences.</i>		
Soil.....	{ Its proprieties as to its culture. Powers and implements to till it.....	Agrology..... Mineralogy. Mechanics applied to agriculture..... Mechanics.
Means of making up substances wanted by the soil for the complete nutrition of vegetables..	{ Their selection, combination, preparation, relative value &c.....	Science of manures..... Chemistry.....
Water.....	{ Means to give it to the plants, to supply the natural moisture; means of getting rid of the superfluous moisture.....	Hydraulics applied to agriculture..... Hydraulics.
Meteors, heat, light, moisture of the different countries.....	{ Their study, in relation with vegetation..... Means of avoiding their action in vegetables and crops.....	Agricultural Meteorology.. Physics. Rural architecture..... Architecture.
Animals in their relations with agriculture....	{ Useful and prejudicial animals to plants..... Domestic animals; their breeding, rearing and use.....	Agricultural zoology..... Zoology. Zootechy..... Zoology.