

possible to keep certain breeds of sheep; thus on a farm on the banks of the Ouse, the Leicester sheep were so rapidly destroyed by pleuritis<sup>89</sup> that the owner could not keep them; the coarser-skinned sheep never being affected.

The period of gestation was formerly thought to be of so unalterable a character, that a supposed difference of this kind between the wolf and the dog was esteemed a sure sign of specific distinction; but we have seen that the period is shorter in the improved breeds of the pig, and in the larger breeds of the ox, than in other breeds of these two animals. And now we know, on the excellent authority of Hermann von Nathusius,<sup>90</sup> that Merino and Southdown sheep, when both have long been kept under exactly the same conditions, differ in their average period of gestation, as is seen in the following Table:—

Merinos .. .. .	150·3 days.
Southdowns .. .. .	144·2 „
Half-bred Merinos and Southdowns ..	146·3 „
$\frac{3}{4}$ blood of Southdown .. .. .	145·5 „
$\frac{7}{8}$ „ „ .. .. .	144·2 „

In this graduated difference in cross-bred animals having different proportions of Southdown blood, we see how strictly the two periods of gestation have been transmitted. Nathusius remarks that, as Southdowns grow with remarkable rapidity after birth, it is not surprising that their foetal development should have been shortened. It is of course possible that the difference in these two breeds may be due to their descent from distinct parent-species; but as the early maturity of the Southdowns has long been carefully attended to by breeders, the difference is more probably the result of such attention. Lastly, the fecundity of the several breeds differs much; some generally producing twins or even triplets at a birth, of which fact the curious Shangai sheep (with their truncated and rudimentary ears, and great Roman noses), lately exhibited in the Zoological Gardens, offer a remarkable instance.

Sheep are perhaps more readily affected by the direct action

<sup>89</sup> 'The Veterinary,' vol. x. p. 217. given in 'Bull. Soc. Imp. d'Acclimat.,'  
<sup>90</sup> A translation of his paper is tom. ix., 1862, p. 723.