cumstances and conditions which influence the body are variable. More non-nitrogenous matter is used in cold weather than when it is warm, and if there be much exercise taken by the animal, the demand for nitrogenous matter is increased in proportion. It is, however, a demand which must be satisfied before the animal can either make growth, or add any fat to its body.

194. Our only true foundation for determining the feeding power of any food, is by the evidence obtained by experimental trial. The following table shows the increase in the live weight of the animal, obtained from the several varieties of food named:

| | | *Increase in live weight* |
|---|---|---|
| 150 lbs. | Swedes consumed in the field | gave 1 lb. |
| 100 ,, | Swedes fed in field, with shed to run under | ,, 1 ,, |
| 12 ,, | Good clover hay | ,, 1 ,, |
| 8 ,, | Beans | ,, 1 ,, |
| 8 ,, | Peas | ,, 1 ,, |
| 7 ,, | Oats | ,, 1 ,, |
| 6 ,, | Barley | ,, 1 ,, |
| 5 or 6 ,, | Linseed cake | ,, 1 ,, |
| 4½ ,, | Linseed cake and peas in equal proportion | ,, 1 ,, |
| 3½ ,, | Linseed cake and beans | ,, 1 ,, |

195. A distinction must be drawn between an **increase in the live weight** and an **increase in flesh.** The general growth in the body necessitates a development of the digestive organs, and other parts of the body constituting the offal, as well as an increase of flesh, bone, and fat. The former mnst be looked upon as necessary machinery, and the latter as the product obtained.

In Sheep, 14 lbs. of live weight usually consists of 5 lbs. offal and 9 lbs. meat.

In Cattle, 14 lbs. of live weight usually consists of 6 lbs. offal and 8 lbs. meat.

It has been already stated (194) that, under certain circumstances, 150 lbs. swedes produced 1 lb. increase in live weight; therefore, 2,100 lbs. swedes would be