

## LOW PROTEIN AND FAT

	Deficiency in protein	Deficiency in fat
No. 69784 .....	0.44 .....	0.58
" 7411 .....	1.00 .....	0.56
" 5613 .....	1.50 .....	0.03
" 52633 .....	1.35 .....	0.12
" 55981 .....	1.23 .....	0.80

## LOW PROTEIN ONLY

	Deficiency
No. 77729 .....	1.28
" 75744 .....	1.89

## LOW PROTEIN AND EXCESS FIBRE

	Deficiency in protein	Excess of fibre
No. 77028 .....	1.75 .....	3.40

Ten (10) samples contain notable amounts of vital weed seeds. This feature constitutes adulteration under G. 968.

It is however felt to be reasonable that a maximum limit, above which noxious weed seeds shall constitute adulteration in Feeds, should be legalized, since it is practically impossible, in certain classes of Feeds, notably Bran, Chop and Registered Feeds, which may contain various forms of mill-offal, to prevent absolutely the entrance of these seeds. Moreover, while it may be very necessary to preclude the presence of weed seeds in seed grain, it is not so absolutely necessary to do this with cattle feeds, since the digestive processes through which the seeds necessarily pass, result in destroying their vitality more or less.

This question has been considered in my report of 20 May, 1913 (see Bulletin No. 254) and a recommendation to the effect that more than 25 seeds per pound of the feed, should constitute adulteration.

A much narrower limit than this might be justified for Middlings (Shorts) and Feed Flour, since these classes of feeds are necessarily ground to a high degree of fineness, and the presence of large numbers of vital seeds could only occur through carelessness in milling, or through intentional addition of material other than Middlings or Feed Flour.

In Bulletin No. 350 I have discussed the advisability of recognizing a low grade flour, largely sold for feeding purposes, as distinct from Shorts or Middlings. It is mainly characterized by possessing a low fiber content and a higher starch content than ordinary Middlings, and is usually whiter in colour. Although its nutritive value may be no greater, and is in some cases even less than that of Middlings, it generally commands a higher price, probably because of its lighter colour, which is mistakenly held to indicate superiority. Five