

The Complete List of Rations.—In case some of the above would be improved by feeding as a part rather than as the whole ration, each was fed alone and also as a mixture, using as part of the mixture a mash composed of equal parts corn meal and finely ground oats. Wherever the mixture was used the ration was one part of the original feed and one part of the mash. Nos. 9 and 10 were exceptions to this for it was found impossible to grind the wild mustard alone, so corn was added half and half to the original feed. Rations Nos. 17 and 18 were duplicates and composed entirely of the mash above referred to. With two exceptions the feed was finely ground and in all cases mixed with skim-milk or buttermilk. The two exceptions were rations Nos. 7 and 8. In these the seeds were boiled instead of ground. This was done to see if boiling would add to the palatability, and the indications were that it did to a very slight degree. The eighteen rations as arranged were:

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| Ration No. | 1—Sealpings. |
| " " | 2—Sealpings and mash. |
| " " | 3—Screenings. |
| " " | 4—Screenings and mash. |
| " " | 5—Black seeds. |
| " " | 6—Black seeds and mash. |
| " " | 7—Black seeds boiled. |
| " " | 8—Black seeds and mash boiled. |
| " " | 9—Wild mustard and corn. |
| " " | 10—Wild mustard, corn and mash. |
| " " | 11—Tumbling mustard. |
| " " | 12—Tumbling mustard and mash. |
| " " | 13—Wild buckwheat. |
| " " | 14—Wild buckwheat a |
| " " | 15—Lamb's quarters. |
| " " | 16—Lamb's quarters and mash. |
| " " | 17—Mash. |
| " " | 18—Mash. |

The Birds.—Seventy-two birds were used for this experiment. They were healthy and vigorous cockerels from 6 to 8 months old, divided as nearly as possible according to weight and breed, and weighed at the beginning and at the end of the period.

The Feeding.—The feeding was done in crates, four birds to a compartment, and each compartment was separated so that the feed intended for one lot could not be taken by any of the other birds. The birds were all fed five days on a mash of equal parts corn meal and finely ground oats, mixed with buttermilk. This was to get them used to confinement, after which they were given their experimental rations.

They were fed twice a day and, after taking all they would eat, that which remained in the trough was scraped out clean. Where the birds would not take to the mash at first, they were left for two or three days to see if they would eat, but on the rations that contained black seeds they would have starved to death rather than eat the feed.