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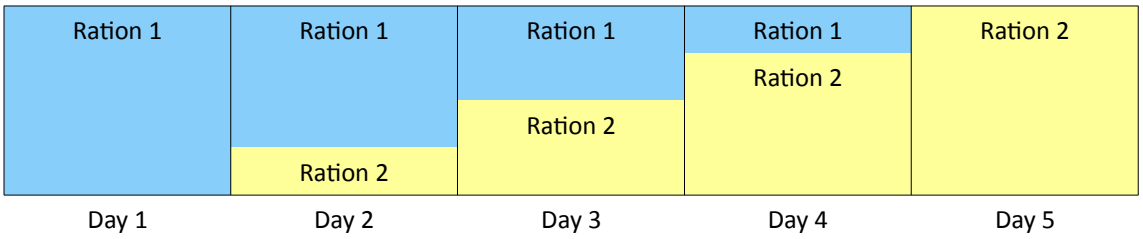
Rations for Chickens*

For small scale commercial chickens, fed full-time, one of the most important aspects we need to know is the crude protein (CP) level of the ration. Generally, we start with a high level of protein and later on, as the bird gets older, we can reduce the protein level. Many small scale chicken producers in Malawi follow the following general guidelines for CP content of rations:

Broilers	Layers	CP
Starter ration, 0-2 weeks	Starter ration, 0-6 weeks	20-22%
Grower ration, 2-4 weeks	Grower ration, 6-20 weeks	18-20%
Finisher ration, 4 weeks +	Layer ration, 20 weeks +	16-18%

Don't change rations suddenly. There is usually no need. The following diagram shows how to gradually change from one ration to another over a few days by mixing the old ration and the new.



We can calculate the contribution of various feed components to the nutrient content of the ration. The approximate nutrient values of many feed components can be obtained from published data (such as is available through the joint project "Feedipedia"). Using this information, we can design home-mixed rations using locally available ingredients. This may enable a significant cost saving over commercially prepared complete rations. The first step in this procedure is to determine what ingredients are available locally.

The following table shows a few sample rations which may be suitable for supplementary feeding in Malawi and the approximate estimated crude protein content of the respective ration. The ingredients in these rations are available in Malawi at least in some localities. Other nutritional information about these rations such as energy content is not shown here. These calculations are based on the estimated CP and moisture content of the ingredients, which may vary from supplier to supplier. It is therefore necessary to take care in using these rations. A proper nutritional analysis of the prepared ration is essential if significant numbers or valuable poultry are involved.

On request, RPC can tailor rations like these to ensure the least cost mix of ingredients. This process is called "least cost ration analysis".

Examples of Rations

	Ration 1	Ration 2	Ration 3	Ration 4	Ration 5	Ration 6
Ingredient	**Kg/100 kg**	**Kg/100 kg**	**Kg/100 kg**	**Kg/100 kg**	**Kg/100 kg**	**Kg/100 kg**
Madeya	50	42	43.6	40	37	30.8
Crushed maize	37.6	43.5	38	40.7	39	34
Fish meal/dried fish	10.5	-	6	-	1.5	-
Soybean meal	-	11.2	10	11	20	20
Rice bran	-	-	-	-	-	7
Groundnut meal (aflatoxin free)	-	-	-	5	-	5
MCP	0.3	0.7	0.4	0.6	2.0	0.1
Lime	1.0	2.0	1.4	2.1	0.4	2.5
Salt	0.3	0.3	0.3	0.3	0.3	0.3
Premix	0.3	0.3	0.3	0.3	0.3	0.3
Total	100	100	100	100	100	100
Est. CP	**14%**	**14%**	**16%**	**16%**	**18%**	**20.0%**

How much will my chickens eat?

It is difficult to be precise about how much total food chickens will eat. There are many factors which affect the total quantity of feed consumed including:

• Feed factors: quality of the feed;

• Bird factors: sex, age, breed, and type of chicken, as well as health status;

• Environmental factors: temperature conditions, stress levels, management.

Subject to variations due to these and similar factors, some published figures for feed consumption are as follows:

Typical Body Weight and Feed Requirements of Broiler Chickens

Age (wks)	Body wt (grams)	Weekly feed (g)	Cumulative feed (g)
1	150	132	132
2	358	281	413
3	653	467	880
4	1,025	671	1,551
5	1,461	848	2,404
6	1,914	1,070	3,475
7	2,363	1,179	4,654
8	2,790	1,297	5,951
9	3,198	1,411	7,362

Typical Body Weight and Feed Requirements of Layer Pullets (brown eggs)

Age (wks)	Body wt (grams)	Weekly feed (g)	Cumulative feed (g)
0	36	136	136
2	118	318	454
4	327	562	1,016
6	499	699	1,715
8	748	762	2,477
10	898	798	3,275
12	1,102	844	4,119
14	1,238	898	5,017
16	1,379	943	5,960
18	1,501	998	6,958
20	1,601	1,098	8,056