Performance of Rabbits on Mash Mixture Feed and Pellet Feed Supplemented with Guinea Grass

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Introduction

- Rabbit being reared for meat production and as source of income, because it ability to turn forages into a high quality protein.
- Rabbit can effectively utilize forages and by-products as major diet component.
- Most of the Mediterranean countries and some other European countries already include rabbit meat as a common food.

Introduction

- The scenario does not happen yet in Malaysia because of many factors, such as the demand itself influences the production system.
- The demand of poultry and other livestock is much more higher compared to rabbit's meat; farmers are still cautious to get involved in this industry.
- Another aspect that related to this industry in Malaysia is the performance of rabbits production still low.
- The cost of production can be reduced if the producer does not depend totally on imported feed raw material.

Objectives

- The general objective of this study is to evaluate the growth performance of rabbits fed with different form of feed.
- Specific objectives
  i. To determine the feed intake of rabbits on pellet feed and mash mixture feed.
  ii. To determine the body weight change of rabbits.
- By conducting this study, observation on whether mash mixture feed can also improve the growth performance of rabbits can be done in order to reduce the cost of rabbits feed.

Methodology

- This study was conducted at Universiti Putra Malaysia, Serdang, Selangor.
- Average temperature and relative humidity of 25ºC - 35ºC and 78% - 80%, respectively.
- Fifteen weaned male New Zealand White (NZW) rabbits were used and placed in individual cages.

RABBIT PRODUCTION

Experimental Design and Dietary Treatment

There are 5 treatment with 3 replicates of animals in each group. The treatments were:

T1: 80% pellet feed + 20% guinea grass

T2: 60% pellet feed + 20% mash mixture feed + 20% guinea grass

T3: 40% pellet feed + 40% mash mixture feed + 20% guinea grass

T4: 20% pellet feed + 60% mash mixture feed + 20% guinea grass

T5: 80% mash mixture feed + 20% guinea grass

Field and Laboratory Data Collection

- Each rabbit was fed with the diet according to the treatment and leftover of feed was measured daily in the morning prior to feeding.
- Feed intake, body weight, digestibility study and nutritive value of feed samples were conducted and recorded.
- Body weight was recorded weekly.

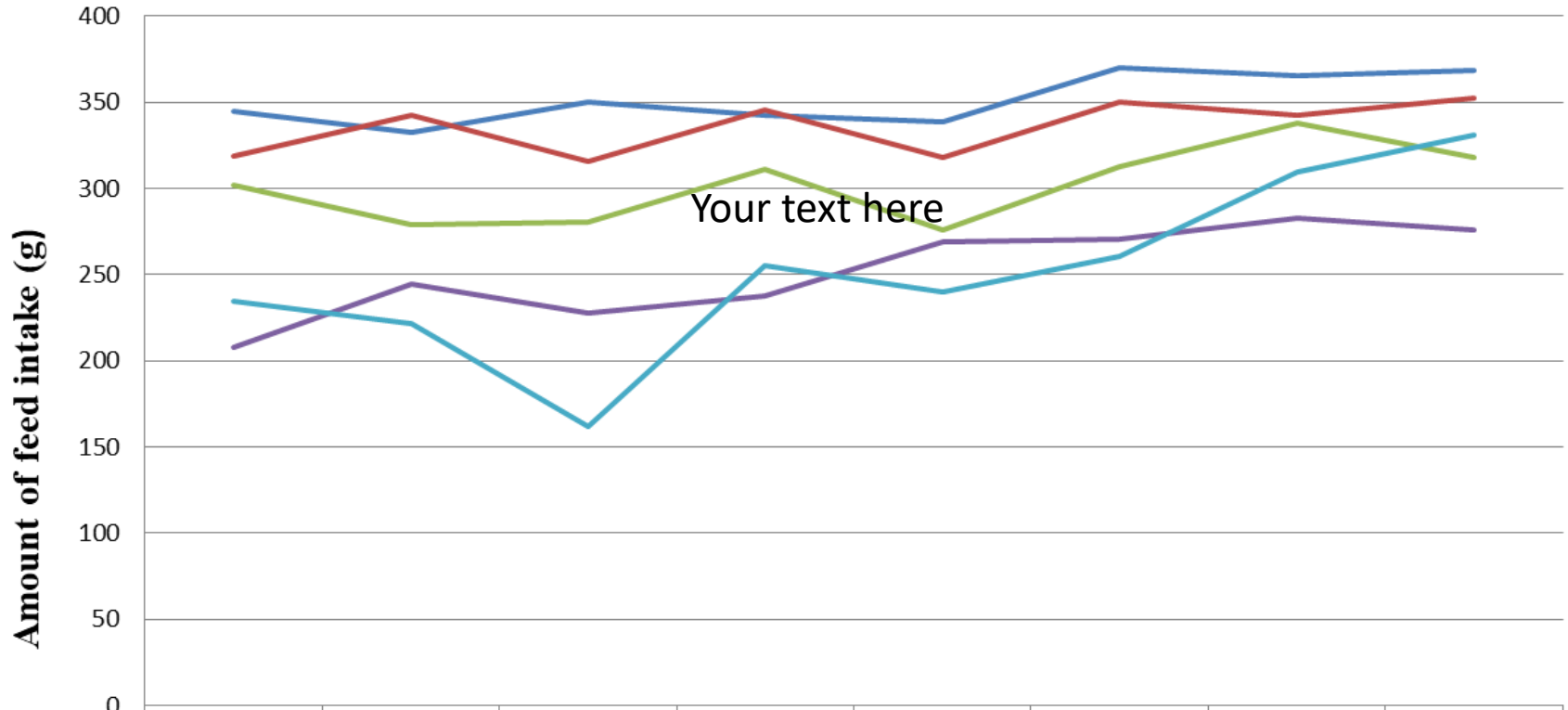
Nutritive value of feed samples

- Feed samples were analysed for crude protein (CP), crude fibre (CF) and dry matter (DM) content using proximate analysis for determination of chemical composition of the feed.

Statistical Analysis

- The data for every parameter was analyzed using SAS 9.4 program to compute analysis of variance (ANOVA) and Duncan's Multiple Range Test (DMRT) for a completely randomized design (CRD).

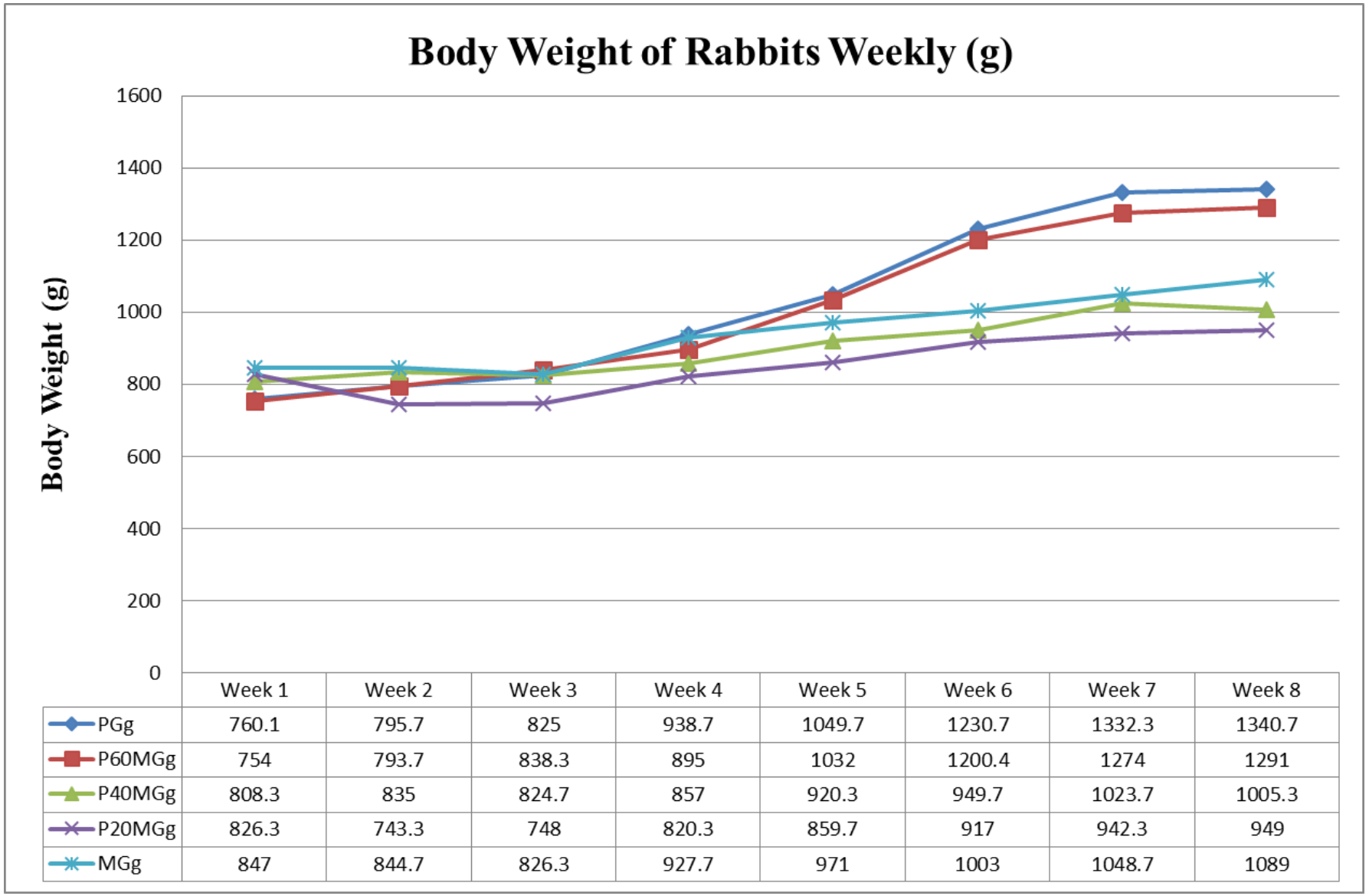
Results and Discussion



	Week1	Week2	Week3	Week4	Week5	Week6	Week7	Week8
PGg	344.6	332.4	349.8	342.7	338.5	370	365.2	368
P80MGg	318.4	342.7	315.7	345.5	318.1	350.3	342.6	352.4
P50MGg	301.7	278.7	280.6	310.8	275.7	312.3	337.8	317.5
P20MGg	207.7	244.4	227.4	237.6	268.8	270.3	282.6	276
MGg	234.6	221.7	162	255	239.6	260.5	309.2	331.1

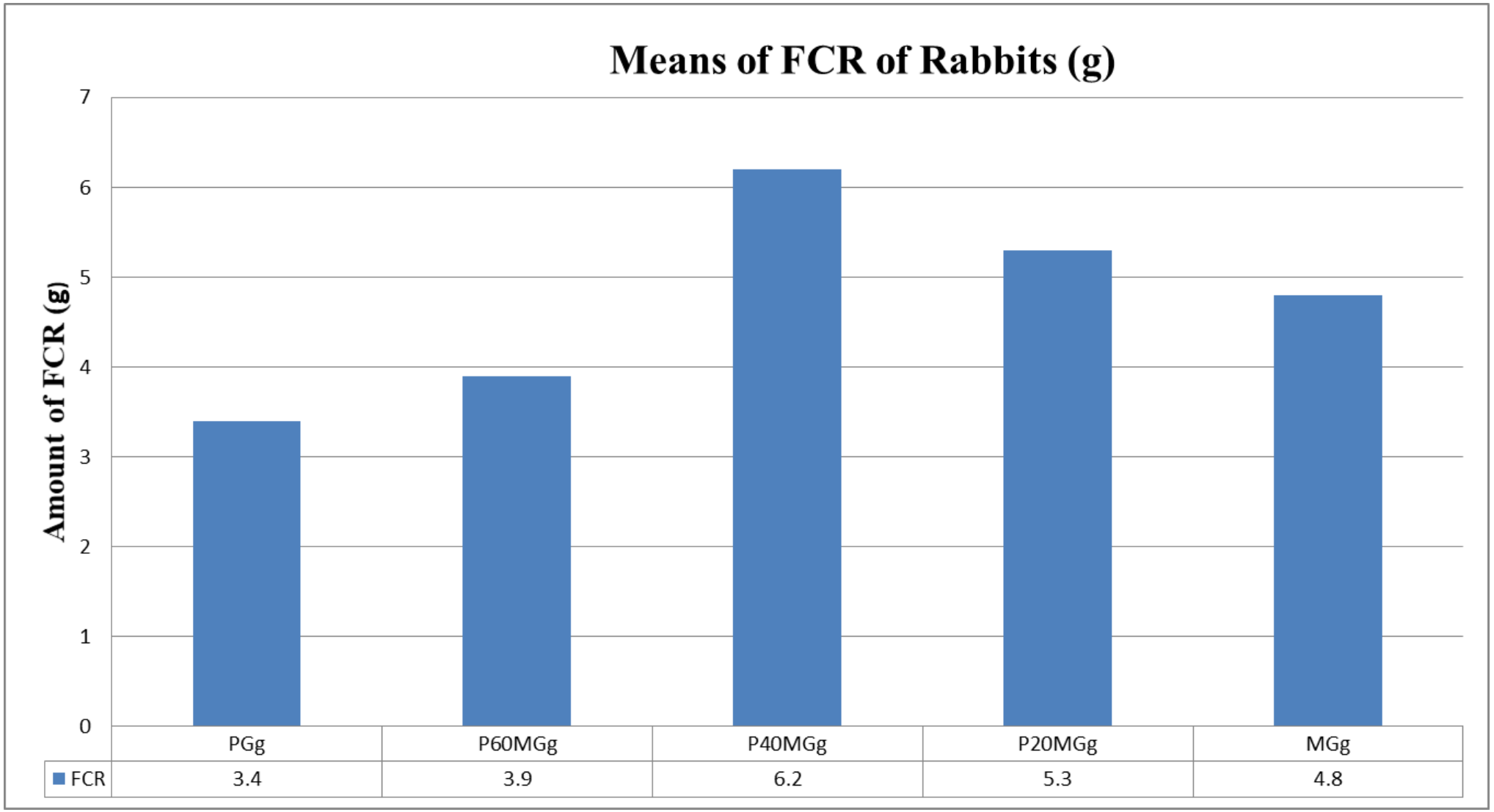
RABBIT PRODUCTION

Body weight



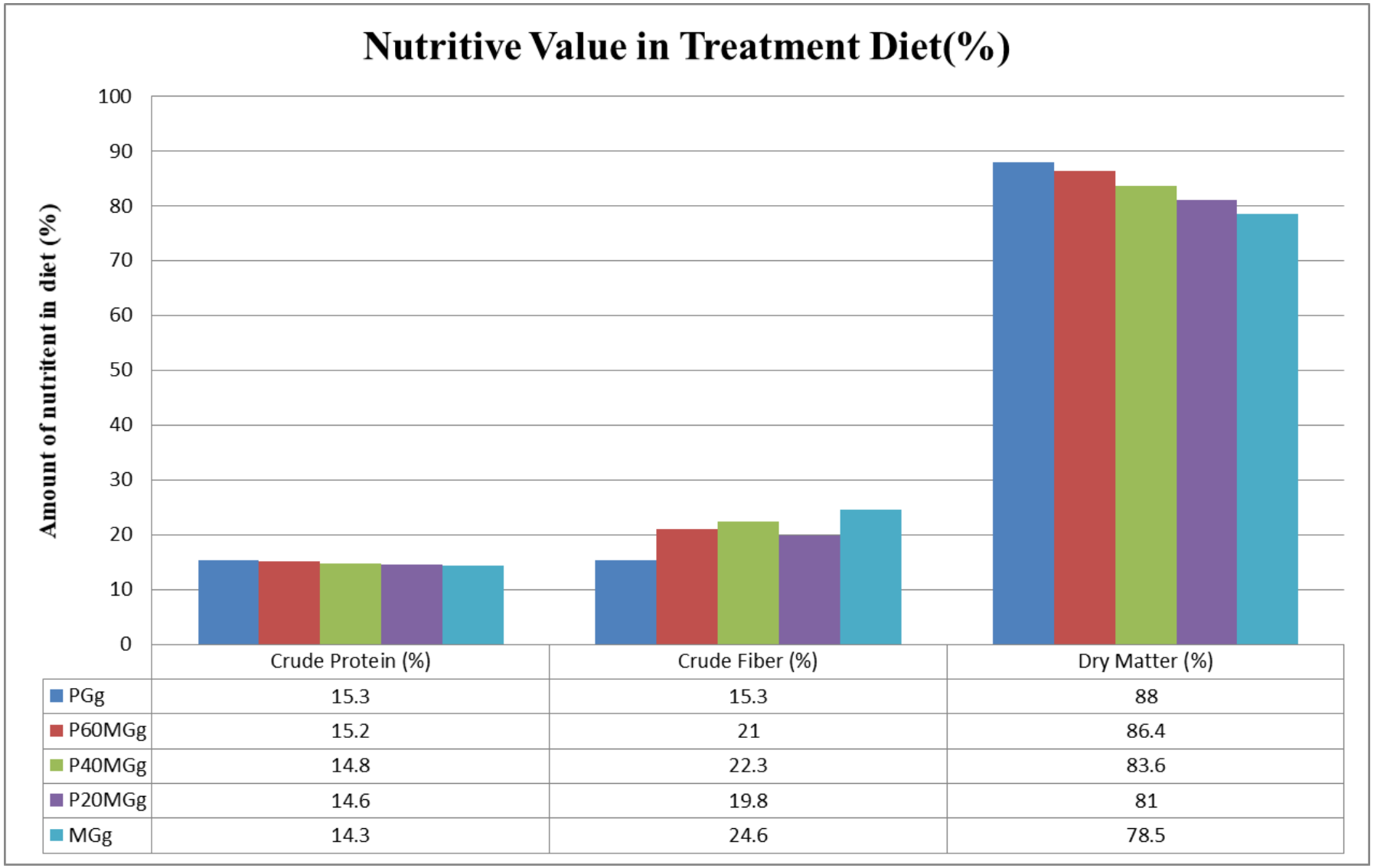
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8
PGg	760.1	795.7	825	938.7	1049.7	1230.7	1332.3	1340.7
P60MGg	754	793.7	838.3	895	1032	1200.4	1274	1291
P40MGg	808.3	835	824.7	857	920.3	949.7	1023.7	1005.3
P20MGg	826.3	743.3	748	820.3	859.7	917	942.3	949
MGg	847	844.7	826.3	927.7	971	1003	1048.7	1089

Feed Conversion Ratio (FCR)



- The dietary factor having the largest impact on the FCR of animals in fatteners is the energy concentration. Based on the results obtained in this research, better FCR comes from the treatment group which the rabbits were fed with 80% of pellet feed.
- This is may be due to energy concentration higher in that treatment diet compared to the other treatment groups pellet feed increase feed conversion ration.

Nutritive Value



	Crude Protein (%)	Crude Fiber (%)	Dry Matter (%)
PGg	15.3	15.3	88
P60MGg	15.2	21	86.4
P40MGg	14.8	22.3	83.6
P20MGg	14.6	19.8	81
MGg	14.3	24.6	78.5

- Higher crude fiber content in mash mixture feed group may due to the different percentage of cereals content.
- Higher dry matter content in pelleted feed may due to high moisture content in mash mixture feed.

Conclusion

- Feeding of mash mixture feed showed slower growth performance compared to pelleted feed.
- Better feed conversion efficiency observed in pelleted diet compared to mash mixture feed.
- Handling and animal uptake of pelleted feed is more convenient compared to mash mixture feed.
- Mash mixture feed is more susceptible to fungi growth that can cause toxicity.

Thank You