**Pet food**

An animal foods producer blends a pet food product and a data set is produced by taking samples from batches blended over a number of different runs. A measure of **calorie** content per 100g will have been taken for each sample as will a second measure from the same batch where this second sample will have been **frozen** for a period of 48 hours first. The primary ingredients in a blend include **grain** for which there are three suppliers A, B and C and **meat** for which there are four suppliers W, X, Y and Z. Additionally, a **vitamin** supplement might (or might not) be added to each blend. Some process parameters are recorded for each production run, in particular the **temperature** (oC) at which the blend is cooked and the total cooking **time** (minutes)

1. Does cooking temperature tend to impact on calorie content?
2. With respect to calorie content, does it matter which meat supplier is used?
3. How, if at all, does adding a vitamin supplement impact on calorie content?
4. Is cooking time and calorie content independent?
5. Is there a greater tendency to add a vitamin supplement when grain from one supplier is used compared to others?
6. Does the grain used in the blending process give rise to different calorie contents?
7. Is the percentage of meat suppliers used to make up the blends about the same for all grain suppliers?
8. Is there any evidence that freezing the product effects the calorie content?