

## 02441 Applied Statistics and Statistical Software

### Exercise 2D - Cheese

As cheddar cheese matures, a variety of chemical processes take place. The taste of matured cheese is related to the concentration of several chemicals in the final product. In a study of cheddar cheese from the LaTrobe Valley of Victoria, Australia, samples of cheese were analyzed for their chemical composition and were subjected to taste tests. Overall taste scores were obtained by combining the scores from several tasters.

Variable name	Description
case	sample number
taste	subjective taste test score, obtained by combining the scores of several tasters
acetic	Natural log of concentration of acetic acid
h2s	Natural log of concentration of hydrogen sulfide
lactic	Concentration of lactic acid

1. Use scatterplots, correlation, and simple regression to examine the relationships among the individual variables.

Start by loading data

```
# Code here
```

Visually investigate the relation between the variables:

```
# Code here
```

2. Why do you think acetic and h2s has been transformed?

3. What happens when you run a regression model with all the independent variables in the model?

```
# Code here
```

4. What model would you prefer for prediction?

```
#Code here
```

5. Predict the ‘taste’ of a cheese where (log) acetic is 5.3, (log) h2s is 8.0 and lactic is 3.0

```
# Code here
```

6. Could there be some problems with the above prediction?

```
# Code here
```