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1. The inherent conflict between a complex model that minimizes unexplained variation and a simpler, yet more easily interpreted model is in part due to the constraints of communicating the purpose of the model to the intended audience. While a more complex model is potentially more descriptive of the underlying phenomena, the diversity of the audience that can gain meaningful insight from that description may be limited. For example, imagine two different models that describe plant growth rates. One model takes in many interrelated factors and predicts, with high-accuracy, the rate in question but requires sufficient knowledge of climatology and botany to make sense of. The other, while less accurate overall, can be easily understood by and communicated to someone with only fundamental understanding of those fields. What is lost in accuracy may be gained in ease of applicability.

2. Water and nitrogen were significantly different from zero.

3. Addition of the coefficients -1.7 + 0.043 + 0.192 + -0.027 = -1.6648
   gives an expected body mass of -1.6648 g, a nonsensical value

4. -1.7 + (0.043*10) + (0.192*20) + (-0.027*30) = 1.76g is the expected biomass.

5. Simple linear regression makes estimates of a dependent variable from a fixed, independent value, while analysis of variance compares the mean values of two independent variables.

6. The deterministic component is $\alpha + \beta x$

7. The stochastic component is ϵ