



United States Department of Agriculture

What is a Model?

A model is a simplified representation of a phenomenon.

Why Build a Model?

Building models helps us understand the phenomenon.

How Do I Make the Right Model?

While no model can be absolutely correct, most models can be helpful. The extent to which a model aids in the development of our understanding is the basis for deciding how good the model is.

In developing models, there is always a trade off between over- and under-simplifying the complexity of the phenomenon.

Because a model is always a simplification of a complex phenomenon, certain details are excluded. The question is what level of detail to include and what to exclude.

If important components are excluded, we risk making the model too simplistic, and our model will not represent our phenomenon as well as we would like. Likewise, if we include too much detail in our model, we risk making our model too complex.