**Here are a few tips that might help you avoid accepting the claim of an optimal solution when it is not, or help you verify whether an uncertain solution is in fact optimal:**

1. If you have a non-linear target cell or objective function for a formulation in a single variable, attempt to plot the function by using successive values of inputs to see if the function might be a candidate for a local optimum. You can do this by copying the function to a long column of cells and placing consecutive values of input in an adjacent column. Then plot the results and note the shape of the curve. Of course, this is only possible for a single variable and in most problems we have far more that one input variable.

2. In the case of multi-variable problems, you may want to resort to simulation of inputs and to see if you can find some combination that outperforms the so-called optimal solution.

3. If a solution is uncertain, but appears to be correct, investigate by examining values near the solution that is proposed. Be careful to consider a local optimum condition.

4. Be careful to note any odd solutions—negative values where none are possible and values that are either too large or too small to accept as possible.

5. Verify that the constraints that are imposed on a formulation are satisfied.

6. Remember that in spite of your best efforts, you may still, on rare occasions, have problems dealing with these issues