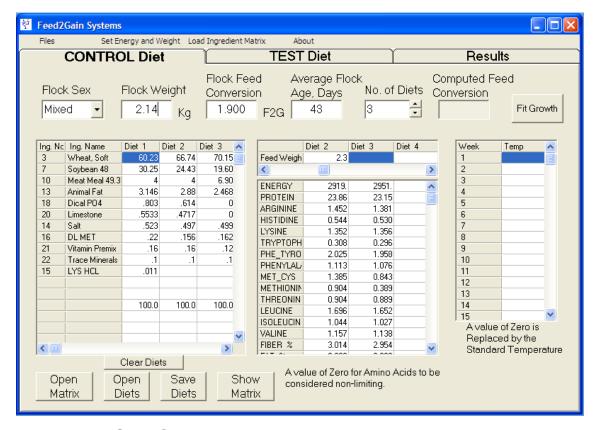
#### EStudy A Feeding Study Analysis Program

from Feed2Gain, LLC.

- Features Uses the power of growth modeling to accurately compare growth from two diets to interpret a feeding study.
- Advantage Interprets those difficult outcomes that defy valuation, better feed conversion, lower growth weight.
- Benefit gives higher confidence in assigning value to an ingredient or treatment that benefits growth.

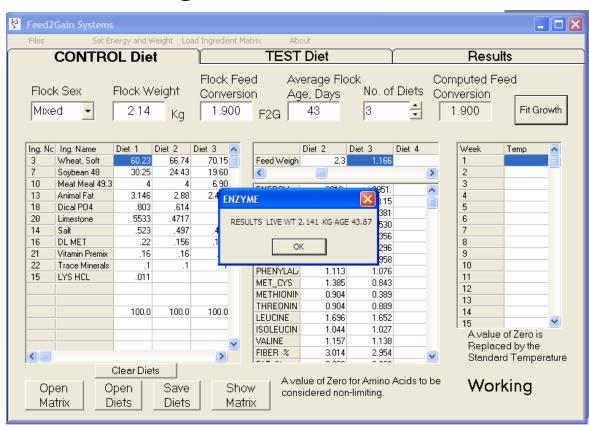
- The program gives you the best way to determine the benefits of changes made in a diet.
  - Use your matrix to identify the ingredients.
  - Input the control diet ingredients and the nutrient contents are calculated from your ingredients.
  - Enter the growth and the program determines the growth parameters that fit the growth of the control birds.
  - Input the test feed program and the model tells you the change in diet that best fits the change in growth seen.
  - Identify in the program which ingredient to re-evaluate and it even tells you the best nutrient profile of energy, protein and amino acids that fit the growth observed.

- Open your matrix with files, then select the ingredients used and the amounts.
- •One can use total or available amino acids, just be consistent in the matrix.
- •The program computes the nutrient content of the diet.
- •Fill out the boxes and click "Fit Growth".

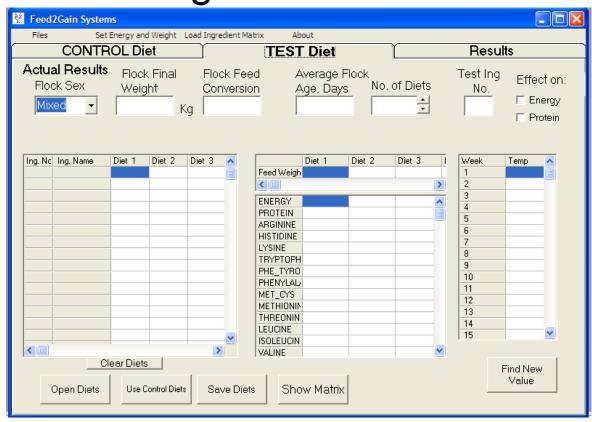


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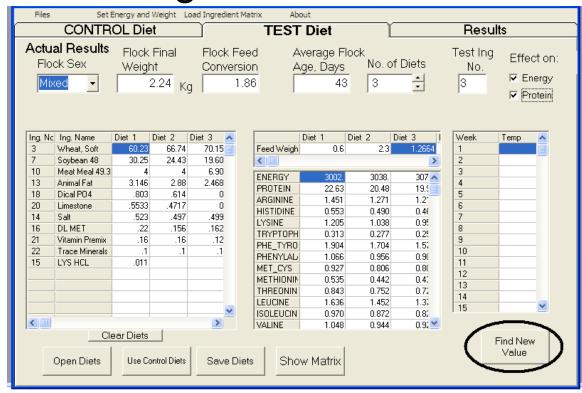
- The program fits the bird growth to the nutrition given.
- Matching the live weight and feed conversion for the flock you describe.
- Now, changes in nutrition will result in an accurate estimate of growth.



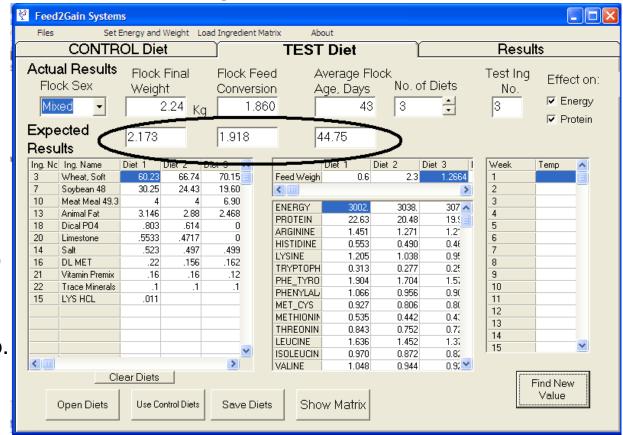
- Go to the Test Diet folder and enter the test diets, the weight of each feed, flock sex, actual weight, feed conversion and age, just as on the control diet. Identify the test ingredient number.
- Now Click on "Find New Value"



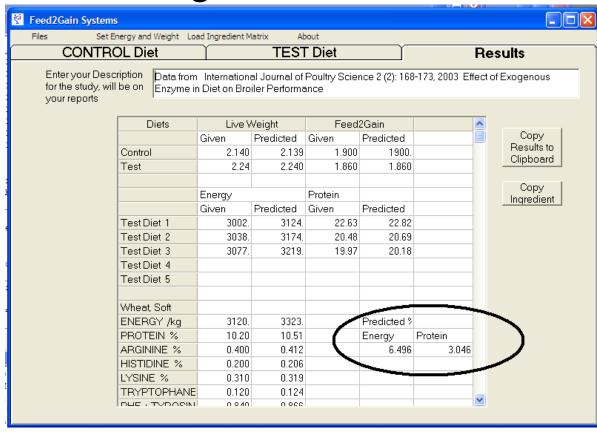
- In our example, we used ingredient 3 as our test material.
- Choose, on the top right of the folder, how to evaluate the test ingredient, energy or protein only, or both, as selected here.



- The program tells us the expected results, which were lower than the observed growth.
- The program finds the energy, protein and amino acids that adjust the nutrition to allow the observed growth and puts that on the RESULTS tab.



- The program tells us that the wheat with enzyme, since we are evaluating the test diet, gave 6.5 percent more energy and 3 percent more protein availability.
- Since all calculations were done based on your nutrient values, a new ingredient of wheat plus enzyme would best be represented by the values in the third column.



- This example could have been run as an enzyme only ingredient, but the
  response of this enzyme is likely related to the amount of wheat in the diet.
  It would make more sense to have a new ingredient that was priced to be
  wheat plus enzyme.
- One could test new ingredients, such as distiller's grains, for example, to get a set of nutrients for that ingredient that is compatible with the rest.
- One could re-evaluate new sources of existing ingredients based on growth in the field after making a change.
- The ingredient may be in only one diet, or all diets.
- One warning. Garbage in Garbage out. If the trials are not well done, or other variables were present, all changes are focused on the ingredient selected to receive the benefit or condemnation of the resultant growth. Sometimes, feeding trials with multiple levels of an ingredient give very different results, due to study variation, but the average across levels should create a reliable estimate of nutrients.