

Carefully read the description of the experiment below. Be prepared to answer the questions that follow the design description as a class quiz.

Investigators want to examine the success of aphids on juvenile zone branches (no flowers) and mature zone branches (flowers present) on clones of cottonwood trees. Twelve separate clones of cottonwood tree received overwintered aphid eggs transferred to both types of branches.

On each of 12 trees, 30 eggs were placed on a juvenile branch and 30 eggs were placed on a mature branch (a total of 24 branches on 12 trees). The success of the 30 eggs on each branch was evaluated as a single “fitness” value that reflected both survivorship and fecundity



yielding one value of success for each of the 24 branches. How would this data be best analyzed to determine if there is a difference in “fitness” between the two types of branch?