

POULTRY CHALLENGE 1

Egg allergies are very common in humans. Most egg allergies are associated with a specific protein found within the egg. How might you produce hypoallergenic eggs?

POULTRY CHALLENGE 2

Events like the COVID-19 pandemic can disrupt supply chains, affecting production and distribution. How might you create a chicken that can hold back egg production?

POULTRY CHALLENGE 3

Climate change leads to more frequent and severe weather events, which can disrupt operations and affect bird health. How might you create a climate-adaptable chicken?

POULTRY CHALLENGE 4

Feed constitutes a significant portion of production costs, and fluctuations in feed prices can affect profitability. Ensuring the feed is nutritionally balanced and free from contaminants is crucial for bird health and productivity. How might a farmer decrease the amount of food a chicken needs to survive?

POULTRY CHALLENGE 5

Poultry farms are susceptible to various diseases such as Avian Influenza, Newcastle disease, and Salmonella. Outbreaks can lead to significant economic losses. How might a farmer produce a disease-resistant chicken or eradicate a disease?

POULTRY CHALLENGE 6

Farmers have met consumer demands by breeding chickens with more lean white muscle mass (larger chicken breasts). Chicken bones are hollow and can break easier under the increased mass. How might you produce a chicken with stronger bones?

POULTRY CHALLENGE 7

A soybean farmer wants to increase his crop yield and reduce the use of herbicides on his soybean crop. How might you both increase the crop yield of the soybean farmer and decrease the use of herbicides on the crop? Soybeans are an important protein in the turkey's diet.

POULTRY CHALLENGE 8

Corn is a crop that needs added nitrogen in order to grow to its full potential. Soybeans are legumes (symbiotic relationship with Rhizobia bacteria), so they do not need added nitrogen. How might scientists create corn that is a legume? Corn is an important energy source in a chicken's diet.

POULTRY CHALLENGE 9

Chickens and chicken eggs are a good source of protein. How might we create a chicken or an egg with a higher protein content?

POULTRY CHALLENGE 10

Events like the avian flu can disrupt supply chains, affecting production and distribution. How might you create a chicken that can produce eggs at a faster rate?