

Package ‘PoultryEconR’

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Type Package

Title Poultry Economic Analysis Tools

Version 0.1.0

Description Provides tools for poultry production and economic analysis.
The package calculates feed conversion ratio (FCR), hen-day egg production (HDEP), hen-housed egg production (HHEP), cost per egg, profit per bird, mortality percentage, and an overall efficiency score based on predefined performance benchmarks. The results can optionally be exported to an Excel workbook and visualized using a bar chart.

License GPL-3

Encoding UTF-8

Depends R (>= 4.1.0)

Imports writexl

Suggests knitr, rmarkdown, testthat (>= 3.0.0)

Config/testthat/edition 3

Config/roxygen2/version 8.0.0

NeedsCompilation no

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Repository CRAN

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PoultryEconR

Poultry Economic Analysis

Description

Calculates poultry production, economic indicators, efficiency scores, overall efficiency, and performance grade for poultry farms.

Usage

```
PoultryEconR(
  Data,
  plot = TRUE,
  export = FALSE,
  file = "Poultry_Analysis_Output.xlsx"
)
```

Arguments

Data	A data frame containing the variables feed_consumed, weight_gained, number_of_eggs, number_of_live_birds, number_of_birds_housed_initially, total_cost, total_eggs_produced, revenue, number_of_dead_birds, and area.
plot	Logical. If TRUE, displays a bar plot of overall efficiency.
export	Logical. If TRUE, exports the results to an Excel file.
file	Character. Name of the Excel file created when export = TRUE.

Details

The function calculates:

- Feed Conversion Ratio (FCR)
- Hen-Day Egg Production (HDEP)
- Hen-Housed Egg Production (HHEP)
- Cost per egg
- Profit per bird housed
- Mortality percentage

Efficiency scores are calculated for each indicator and combined to obtain an overall efficiency score. Based on this score, each record is classified into one of five performance grades: Excellent, Good, Average, Poor, or Very Poor.

Value

A data frame containing:

- Area
- Feed Conversion Ratio (FCR)
- Hen-Day Egg Production (HDEP)
- Hen-Housed Egg Production (HHEP)
- Cost per egg
- Profit
- Mortality percentage
- Efficiency scores
- Overall efficiency
- Performance grade

Examples

```
poultry_data <- data.frame(  
  feed_consumed = c(300, 320),  
  weight_gained = c(180, 190),  
  number_of_eggs = c(170, 175),  
  number_of_live_birds = c(180, 185),  
  number_of_birds_housed_initially = c(185, 190),  
  total_cost = c(5000, 5200),  
  total_eggs_produced = c(170, 175),  
  revenue = c(7000, 7300),  
  number_of_dead_birds = c(2, 3),  
  area = c("Farm A", "Farm B")  
)  
  
PoultryEconR(poultry_data, plot = FALSE, export = FALSE)
```

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