Agricultural economics

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Abstract

In this paper, I describe agricultural economics.
The paper ends with "The End"

Introduction

Agricultural economics seems daunting to the layperson but is actually, quite easy.
In this paper, I describe agricultural economics.

Agricultural economics

Let the number of **seeds** be $s \neq 0$, the number of **plants** be $P \neq 0$ and the number of **fruits** be F.
Then the **yield** is

$$y = \frac{P}{s} - 1$$

and the **dividend** is

$$d = \frac{F}{P} - 1$$

and the **reap** is

$$r = \frac{F}{s} - 1$$

Then we have

$$r = \frac{F}{s} - 1 = \frac{F}{P}\frac{P}{s} - 1 = (1+y)(1+d) - 1 = 1 + y + d + yd - 1$$

Therefore, **the fundamental equation of agricultural economics** is

$$r = y + d + yd \dots (1)$$

Optimal stopping of agriculture

From (1), we have the yield

$$y = \frac{r-d}{1+d} \dots (2)$$

It can be readily shown that

$$\frac{r-d}{1+d} = r - d(1-d)\left(1+d^2\right)(1+r) - \frac{d^5(1+r)}{1+d} \dots (3)$$

Therefore, we **stop agriculture optimally** when

$$1 + y = \frac{1+r}{1+d}$$

The End