David Ricardo and the Corn Model

Class guide / October 15, 2026 01 HL ch. 5, pp. 91–98

Name: _____

What this is. Follow along in class and fill in as we go. Pages 1–2 are the model. Page 3 is how to play Ricardo's Farm. Page 4 is a worksheet you solve on paper and check in the game. Page numbers are Hunt & Lautzenheiser, 3rd ed.

A1 Who he was

HL pp. 91–92

David Ricardo lived from _____ to _____. His father was a stockbroker who had come to England from _____. Ricardo made his own fortune on the _____ and was rich before he was _____. In _____ he read Smith's *Wealth of Nations*. HL call him "the most _____ theoretician of the classical economists."

His closest friend and lifelong opponent was _____. They agreed about _____. They disagreed about value, about gluts, and about which class should win the fight between _____ and _____. Ricardo took the side of the _____.

A2 The question he set himself

HL p. 92, preface to the *Principles* (1817)

The produce of the earth "is divided among three classes of the community, namely, the proprietor of the _____, the owner of the stock of _____ … and the _____ … To determine the laws which regulate this _____ is the principal problem in Political Economy."

In 1815 Malthus published a pamphlet on rent. _____ later Ricardo published his *Essay on the Influence of a Low Price of Corn on the Profits of Stock*, which contains the model on page 2.

A3 Four definitions

HL pp. 92–93, 95

Rent

Net produce

The margin

Rate of profit

A4 The assumptions

HL pp. 92, 95

Ricardo states two. Two more are doing work in the background. Fill in all four.

1. Land differs in _____, and all plots can be ranked from best to worst. Plots come into use in that order.
2. _____ among the farmers who rent land equalizes the _____.
3. (background) The economy produces one good, _____, and each plot gets the same dose of capital and labor.
4. (background) Wages sit at _____, which comes from _____.

Keep in view. Two classes share the surplus: landlords and capitalists. Workers get the wage. The whole model is about how the surplus is split as worse land comes into use.

The corn model

Rent, the margin, and the squeeze — 02 HL pp. 93–98

B1 Three plots

HL p. 93, Ricardo's own example

Plots No. 1, 2, 3 yield a net produce of 100, 90, 80 quarters with the same capital and labor. Fill the table.

In use	Rent No. 1	Rent No. 2	Rent No. 3	Profit each
No. 1 only	_____	—	—	_____
No. 1 and 2	_____	_____	—	_____
No. 1, 2, 3	_____	_____	_____	_____

Why can the farmer on No. 1 not get away with paying 15 once No. 3 is in use?

The rule in one sentence: rent on a plot equals _____, and it is set by competition among the _____, not the landlords.

B2 Draw Figure 5.1

HL p. 94

Bars for net produce 100, 90, 80; dashed lines at 80 and 90; shade the rent layers.

B3 Many plots: the triangle

HL pp. 94–98, Figures 5.2–5.4

Make the plots small and the bar tops become a line, P. Count the wage too: produce = wages + profit + rent. With x plots in use and the marginal plot producing y:

The triangle above y, under P

The band between the wage line and y

The rectangle below the wage line

Press "next year": the margin moves right. What happens to each area?

Accumulation stops when the marginal plot's produce equals _____. Ricardo's name for that point: the _____ (p. 114).

Keep in view. Rent does not squeeze profit directly. Dearer corn raises the cost of labor, and that is what lowers profit. The margin moving out causes both.

Ricardo's Farm

C1 What you are trying to do

Nine puzzles, three levels

Each level has three puzzles. Some you solve by moving the farm into a state the puzzle names. Some you solve by predicting a number on paper before the farm shows it. A gold badge appears when a puzzle is solved. Nothing is locked.

Level	You are	You win when
1 The bidding	a farmer on the best plot, choosing a rent to offer	you find the rent at which no one moves, and predict rents before new plots arrive
2 The margin	whoever presses *next year*	you squeeze profit to zero, set the wage so $r = 1.0$, and predict rent after a wage change
3 The Corn Laws	a landlord, then a capitalist	you find the world price at which repeal costs landlords nothing, and say who wants the ban

C2 Why you care

- Tuesday's quiz quotes the passages behind these puzzles (pp. 93, 96, 97). The farm is practice for it.
- Build 2 (next Thursday) is this model. You will hand-derive a schedule, then have an agent build it, then check the agent against your paper. The farm is what a correct build looks like.

C3 How to play

1. Go to **ricardo-farm.pages.dev** on a laptop or phone.
2. Read *Meet Ricardo*, then Level 1. Pencil out, farm second.
3. For a "predict" puzzle, work the number on paper, type it, then press the button that makes it happen and watch.
4. *Where to read* gives the pages for each level. *My schedule* is for page 4: type the worksheet numbers and the farm prints every row.
5. *Ask Ricardo* (bottom right) is a tutor. The class code is **corn**. He can see your farm. He will not give you a number; he will ask you a question. That is on purpose.

C4 Questions people ask

Why won't Ricardo just tell me?	The farm already knows the answer. The point is whether you can produce it. He will point at the marginal plot and ask what it yields.
The farm disagrees with my paper.	One of you is wrong. Find the margin first, then redo the differences.
Under free trade, where do the workers from plots 5–7 go?	The model does not draw it. In Ricardo they move to manufacturing, which makes the exports that pay for the corn (p. 120).

Keep in view. Pencil first. The game checks you; it does not teach you. Ricardo asks questions because that is what a tutor is for.

Worksheet

Solve on paper, check in *My schedule* 04 Produce 150, 140, . . . , 60; wage 80

Ten plots, produce 150, 140, . . . , 60; wage 80. Rent = produce minus marginal produce. Profit per plot = marginal produce minus wage. r = profit per plot ÷ wage.

D1 Equilibrium: no one moves

Level 1

Five plots in use.

Plot	1	2	3	4	5
Rent	_____	_____	_____	_____	_____
Profit	_____	_____	_____	_____	_____

You may farm any plot at these rents. Which do you choose, and why does it not matter?

D2 Entry and the zero-profit condition

Level 2

Plots in use	Marginal produce	Profit per plot	r	Total rent
3	_____	_____	_____	_____
7	_____	_____	_____	_____
8	_____	_____	_____	_____

Plots keep entering as long as _____. The last plot to enter is the one whose produce equals _____. That is the zero-profit condition on the marginal land.

D3 A wage change

Level 2

Five plots in use; the wage rises from 80 to 100. Rent before _____, after _____. Profit per plot before _____, after _____. Who paid, and why not the landlords?

D4 The Corn Laws

Level 3

Population needs 7 plots. World price equals 120 of produce per plot.

	Plots farmed	Total rent	Profit per plot	r
Corn Laws (no imports)	_____	_____	_____	_____
Repealed (imports at 120)	_____	_____	_____	_____

Highest world price at which repeal costs the landlords nothing: _____. Who votes to keep the Corn Laws, and what did Ricardo say about that class's interest?

D5, on the back. Does this model say exchange harmonizes interests, or conceals a conflict? Whose conflict, and who is on the same side?

Keep in view. Check every row in *My schedule*. If a row does not match, the margin is the first thing to recheck. Bring this sheet Tuesday.