



Who sets the price of strawberries?

One farm among thousands: it takes the price, picks the quantity, and competition erases profit in the long run.

1

Perfect competition

the market type

- 4 **features** → many buyers and sellers · identical product · free entry and exit · everyone knows the price
- Firm is a **price taker** → too small to move the price · Mateo asks \$16 vs market \$14 → sells 0 (buyers go to another farm)
- Flat demand for the firm ⇒ $P = MR = AR$ (each extra crate sells at the same price) · P price · MR marginal revenue = \$ from 1 more crate · AR average revenue = \$ per crate

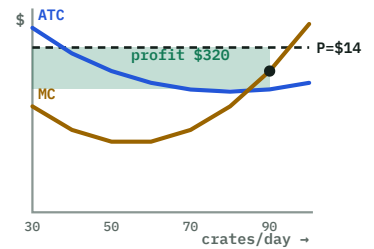
2

Best quantity

where profit peaks

crates	60	70	80	90	100
revenue @ \$14	840	980	1,120	1,260	1,400
total cost	660	730	820	940	1,100
profit	180	250	300	320	300

- Profit** = $(P - ATC) \times Q$ = block between price line and ATC · ATC average total cost = cost per crate, rent included · Q crates
- Rule** → grow every batch whose MC (marginal cost = cost of 1 more crate) < P · stop when next batch costs more ($MC = MR = P$)
- P = \$14 ⇒ 90 crates, **\$320** · P = \$11 ⇒ 80 crates, \$60 (81-90 cost \$12 each > \$11)

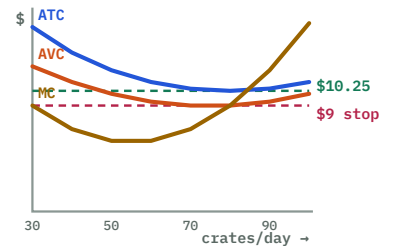


3

Losses and shutdown

stay or leave?

- Shutdown price** = lowest AVC (average variable cost = cost per crate, rent left out) = **\$9** · fixed cost (\$100 rent) is due anyway, so it is not in the rule
- $P < \$9$ ⇒ **shut down** → lose only \$100 · at \$8: grow 70 crates -\$170 · grow 40 -\$220 · shut -\$100
- $\$9 \leq P < ATC \text{ min}$ ⇒ **loss, but keep growing** → at \$9.50, 80 crates: $760 - 820 = -\$60 > -\100
- Firm's supply curve** = MC above the \$9 shutdown price · below it, supply = 0
- Loss ≠ shut down · shut down only if the loss would be bigger than the fixed cost
- Rent \$100 → \$200 ⇒ shutdown price still \$9 (AVC ignores fixed cost)



4

Long run

entry and exit

- Profit (\$320 at \$14) → **entry** → market supply shifts right ⇒ price ↓ to **\$10.25** (= lowest ATC, 80 crates) ⇒ profit 0, entry stops
- Loss (\$60 at \$9.50) → **exit** → supply shifts left ⇒ price ↑ to \$10.25 ⇒ profit 0, exit stops
- Long-run equilibrium** → $P = \min ATC$ · economic profit = 0 for every firm
- Demand shock ↑ → price back to \$14, profit \$320 → entry again → back to \$10.25 (more farms, more crates in total)

5

Efficiency

two kinds

- Productive** → lowest possible cost per crate → $P = \min ATC = \$10.25$
- Allocative** → last crate is worth what it costs to grow → $P = MC$
- Both hold in long-run equilibrium of perfect competition

6

A fixed fee

practice case

- \$60 a day stall fee = **fixed cost** ↑ → same at every quantity
- Profit -\$60 in every row (80: \$240 · 90: **\$260** · 100: \$240) ⇒ **best quantity unchanged** (90)
- MC and AVC unchanged ⇒ shutdown price still \$9 · only ATC ↑ ⇒ long-run price \$10.25 → **\$11.00**
- Fixed cost changes profit and ATC, never the best quantity