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

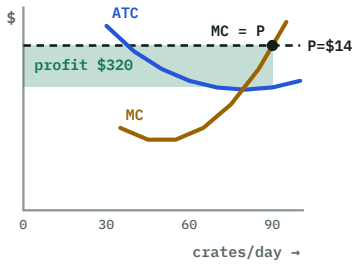
the market type

- **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

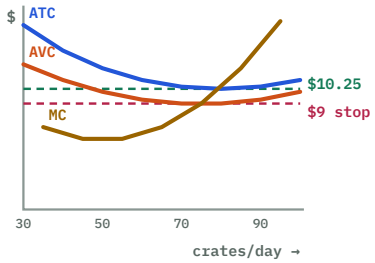
crates	60	70	80	90	100
revenue @ $14	840	980	1,120	1,260	1,400
total cost	660	730	820	940	1,100
profit	180	250	300	**320**	300



- `Profit = (P − ATC) × 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 ≤ P < ATC 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 (after every cost, incl. owner's time) = 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