

Uniformity is one number: CV%.

The spread of the flock decides how many birds hit the weight you get paid for.

One number for how even the flock is

CV% = standard deviation ÷ average body weight × 100. The lower the CV%, the tighter the flock. Uniformity% is the share of birds within ±10% of the average — the higher the uniformity%, the more even the flock. They are two views of one spread.

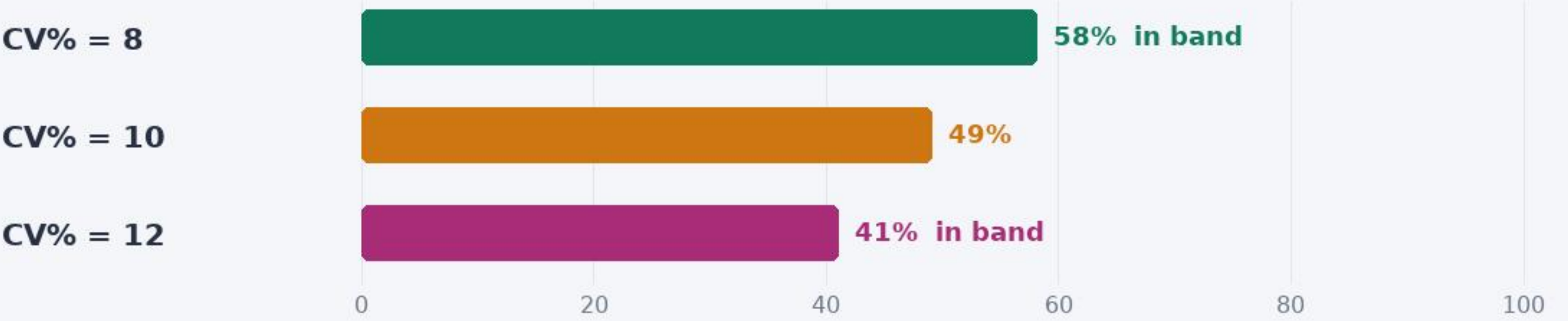
The scale both breeders publish — and both agree on

CV %	5	6	7	8	9	10	11	12	13	14	15	16
UNIFORMITY %	95	90	85	79	73	68	64	60 / 58	56	52	50	47

Ross Table 3.1 and Cobb's p.39 table are near-identical: CV 5 = 95% uniform, CV 10 = 68%, CV 16 = 47%. The only row they differ on is CV 12 — Ross reads 60%, Cobb 58%. Colours are Cobb's Uniform / Average / Poor tiers; Ross's numbers plot on the same scale.

Why the spread costs money at the plant

% of a 1.9 kg flock that lands in the 1.8-2.0 kg pay band (Ross Fig 3.7)



Same average weight, same 200 g pay band. A wider spread just moves birds out of the band you get paid for.

The flock tells you early — at day 7

7-day body weight target

Ross: ≥ 4.5× day-old weight
Cobb: ≥ 4.8× day-old weight

Day-old baseline (Cobb)

CV 7.9 · 80% uniform

Chicks arrive at ~80% uniformity; the first week is where you keep or lose it.

Measure it right, or the number lies

WEIGH INDIVIDUALLY — MINIMUM BIRDS PER SAMPLE (Ross Table 3.2)

Target CV% = 8
65 birds

CV% = 10
100 birds

CV% = 12
140 birds

Weigh at least once a week — twice weekly as processing age nears. Sample from at least 3 spots per house, away from doors and walls. Bulk weighing gives an average only; you must weigh birds one at a time to get CV%. A tighter target needs a bigger sample.

The rule this deck is arguing for

Uniformity is not a soft welfare word — it is CV%, and CV% decides the share of birds in the pay band. It is set early (day 7) and lost quietly through the flock. Weigh enough birds, often enough, per bird — because the average hides the very birds pulling CV% up.

Based on Aviagen Ross Broiler Management Handbook 2025, Section 3 (Tables 3.1-3.3, Fig 3.7), and Cobb Broiler Management Guide 2021, Section 5.1 (p.38-39). Numbers read straight from the tables.

One spread, two numbers

Ross Section 3 and Cobb Section 5.1 — how CV% and uniformity% are calculated

Coefficient of variation (CV%)

CV% = standard deviation of body weight ÷ average body weight × 100.
It is a comparative measure — it lets you track how the spread changes as the flock grows, independent of how heavy the birds are. A low CV% is a uniform flock; a high CV% is a variable one.

Uniformity %

Uniformity% = the number of birds within ±10% of the average body weight, divided by the total weighed, × 100. Cobb samples ~100 birds in each of 3 house sections (300 total) and counts how many fall inside the ±10% band. It is the same spread as CV%, read the other way round — higher uniformity% means lower CV%.

THE SHARED SCALE — CV% ↔ UNIFORMITY% (Ross Table 3.1 / Cobb p.39)

CV %	5	6	7	8	9	10
UNIF %	95	90	85	79	73	68
CV %	11	12	13	14	15	16
UNIF %	64	60 / 58	56	52	50	47

Read it as a working range

In a well-run broiler flock CV% sits in single digits. Cobb calls CV 5-7 (uniformity 95-85%) Uniform, CV 8-10 (79-68%) Average, and CV 11+ (64% and below) Poor. Day-old chicks arrive at about CV 7.9 / 80% uniformity, and good management holds the line from there.

Why hold CV% constant, not weight

Average weight climbs every day, so the raw spread in grams grows with it. CV% divides the spread by the average, so a rising CV% is a real loss of evenness — not just bigger birds. That is why it, not the standard deviation alone, is the number to trend.

Ross and Cobb agree — almost to the row

Ross Table 3.1 vs Cobb p.39 — the CV% / uniformity% relationship

CV %	ROSS UNIF %	COBB UNIF %	COBB TIER
5	95	95	Uniform
6	90	90	Uniform
7	85	85	Uniform
8	79	79	Average
9	73	73	Average
10	68	68	Average
11	64	64	Poor
12	60	58 ← differ	Poor
13	56	56	Poor
14	52	52	Poor
15	50	50	Poor
16	47	47	Poor

Treat the agreement as validation

Two independent primary breeders publish essentially the same CV% ↔ uniformity% curve. That is not a coincidence — it is the arithmetic of a normal weight distribution. So the scale is a genuine cross-breeder standard, not one company's house style.

The one row they differ on

At CV 12, Ross reads 60% uniformity and Cobb 58% — a two-point rounding difference in how each maps the tail, not a disagreement about the biology. Either way, CV 12 is a flock a fifth of which now sits outside the ±10% band.

Whose labels are whose

The Uniform / Average / Poor tiers are Cobb's, from its own Evaluation column. Ross's Table 3.1 is numbers only; its separate sample-size table uses different words (Uniform / Moderately Uniform / Poorly Uniform). We plot Ross's numbers on Cobb's tiers for one clean scale — the tiers are labelled as Cobb's, not shared.

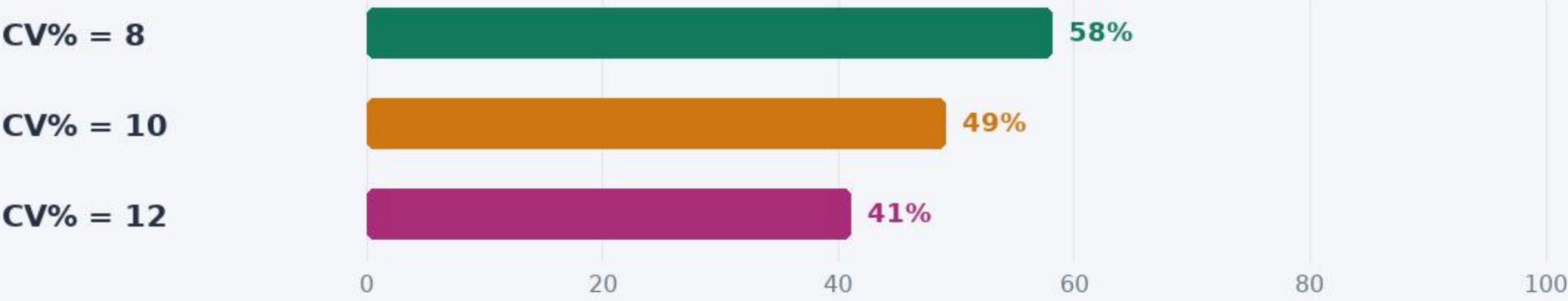
What the spread costs at the plant

Ross Fig 3.7 — % of a sexed 1.9 kg flock inside the target live-weight band

Same average weight, three different flocks

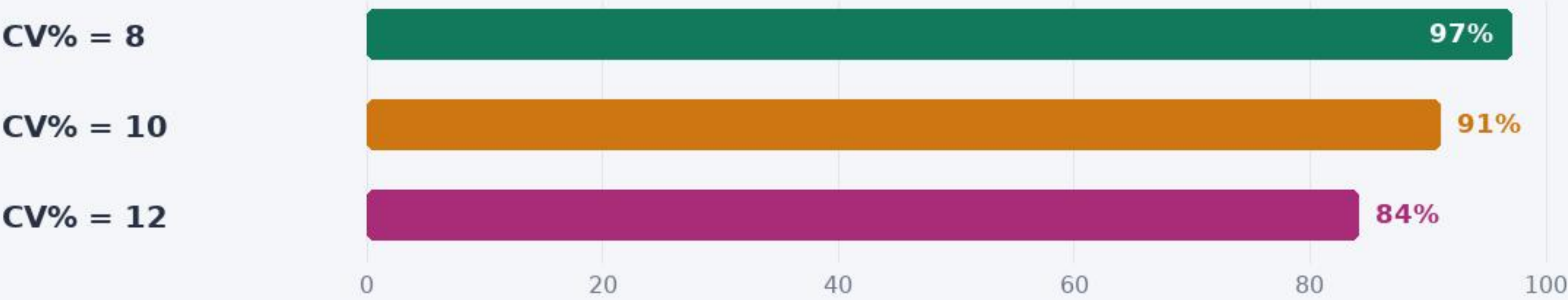
Ross plots three single-sex flocks that all hit a 1.9 kg average, at CV 8, 10 and 12. Then it asks: what share of each actually lands inside the buyer's weight band? The average is identical. The share you get paid for is not.

% of the flock inside a NARROW 1.8-2.0 kg band (200 g wide)



A tighter flock puts 17 more birds in every 100 into the narrow band than a CV 12 flock.

% inside a WIDER 1.6-2.2 kg band (600 g wide)



Widen the band and the gap shrinks — but you only widen the band by accepting off-target birds.

The full picture (Ross Fig 3.7)

1.8-2.0 kg band: CV 8 → 58% · CV 10 → 49% · CV 12 → 41%
1.7-2.1 kg band: CV 8 → 86% · CV 10 → 76% · CV 12 → 67%
1.6-2.2 kg band: CV 8 → 97% · CV 10 → 91% · CV 12 → 84%

Why this is the money slide

Every bird outside the band is sold at a discount, downgraded, or grown on at extra cost. Ross puts it plainly: variation in performance raises CV%, which drives both flock profitability and processing-plant efficiency. Uniformity is a P&L line, not a nicety.

It is won or lost in the first week

Ross Table 3.3 and 7-day targets · Cobb 7-day checks — the day-7 diagnostics

Day-old is the baseline you are handed

Cobb records day-old chicks at a CV of about 7.9 — roughly 80% uniformity — and calls CV 8-10 an acceptable hatch. That is the spread you start with. Everything after placement either holds it or widens it; brooding rarely tightens a flock that arrived uneven.

7-DAY BODY-WEIGHT TARGET — the single best early predictor

Ross

≥ 4.5×

minimum of day-old weight

Cobb

≥ 4.8×

minimum of day-old weight

The breeders differ here — read it as a floor

Ross sets the 7-day floor at 4.5× day-old weight, Cobb at 4.8×. Both agree the point is the same: a flock that misses its 7-day weight rarely recovers, and every extra gram gained by day 7 compounds — Cobb estimates 6-7 g more at 35 days for each gram gained by day 7.

CV% DRIFT, DAY 0 → DAY 7, AS A BROODING SCORE (Ross Table 3.3)

0 pts Excellent	+1 Very Good	+2 Good	+3 Average	+4 Poor	+5 Very Poor
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How to use the drift number

Weigh individually at placement and again at day 7, and compare CV%. If it has widened by more than 3 points — say 6% to 10% — Ross says review brooding before the next flock. The drift is a cheap, early audit of feed, water, heat and space in the first seven days.

Measure it so the number is real

Ross Section 3 — sample size, frequency, and how to weigh

MINIMUM BIRDS PER SAMPLE, BY TARGET CV% (Ross Table 3.2)

TARGET	UNIFORMITY%	WEIGH AT LEAST
CV% = 8 (Uniform)	79%	65 birds
CV% = 10 (Moderately Uniform)	88%	100 birds
CV% = 12 (Poorly Uniform)	90%	140 birds

The sample gives a live-weight estimate within $\pm 2\%$ of actual, correct 95% of the time.

How often, and from where

Weigh at least once a week — twice weekly as processing age approaches and precision matters. Take birds from at least 3 locations per house, away from doors and walls, so the sample is representative. Weigh at the same time of day with the same, calibrated scale every time.

Bulk vs individual — and why it matters

Between 0-21 days you can bulk-weigh a sample for the average. But a bulk weight cannot give CV% — for that, birds must be weighed one at a time. From 21 days, weigh individually and record uniformity weekly. Manual scales read to ± 20 g, electronic to ± 1 g.

The trap the average sets

An average can look perfect while the flock is splitting into a big group and a small group. Only individual weights and CV% reveal that. Weigh too few birds, or only in bulk, and the one number that predicts your pay-band split is the one you never actually measured.

What widens CV% — and the number nobody watches

Ross investigation list · the drivers of lost uniformity, and the measurement gap

Where poor uniformity comes from (Ross)

When a flock runs uneven, Ross says look first at: chick quality, brooding management, feeder and drinker access, feed quality, stocking density, ventilation, and disease. Most of these act in the first two weeks, which is why day-7 CV% is the early alarm.

Feed & water access

Birds that cannot reach feed or water at placement fall behind and never catch up.

Stocking density & environment

Crowding, cold spots and poor air split a flock into fast and slow groups.

Health challenge

Disease hits birds unevenly — a few respond hard, and the spread of weights widens.

The measurement gap

Every figure on this deck rests on knowing each bird's weight. Yet most houses weigh a sample once or twice a week, by hand — a snapshot of a few dozen birds standing in for tens of thousands. The birds going off-target between weigh days are exactly the ones a sample of 65 is most likely to miss.

What it would take to close it

Not a better table — the tables are good. It would take each bird's weight read continuously, so CV% is a live line rather than a weekly dot, and a flock starting to split is seen on the day it starts, not at the next scheduled weigh. That is the part nobody is standing in the house long enough to see.

Save this and check one thing this week

Weigh a proper sample individually at day 7 and compare CV% to placement. If it has drifted more than 3 points, your uniformity problem already started — go find it.

Based on Aviagen Ross Broiler Management Handbook 2025, Section 3, and Cobb Broiler Management Guide 2021, Section 5.1. Full provenance: 01-monday/SOURCES.md