



THE ECONOMICS OF SPENT HEN CULLING & SALES

The spent hen is the last financial transaction in a layer production cycle. After 72 weeks of egg production, 504 days of feed cost, and a complete vaccination and health management program, the commercial layer hen has one final economic value: her body weight, sold either live or slaughtered, to a buyer who will process her for meat.

Most layer farmers treat depopulation as an administrative event — something that happens when the eggs stop coming at a commercially viable rate. Few treat it as a **revenue optimization opportunity**. Timing, pre-slaughter management, and market selection can increase spent hen revenue by 40–80%.

The Economic Logic of Depopulation Timing

When Does a Hen Become "Spent"?

A laying hen is not spent when she stops laying. She is spent when the cost of keeping her exceeds the marginal revenue she generates — the economic threshold, not the biological one.

Example Calculation (Week 68):

Daily Revenue per Hen: 70% rate × XAF 140/egg = **XAF 98/day**

Daily Cost (Feed + Overhead): **XAF 60/day**

Daily Margin: **XAF 38/day** (Positive)

Break-even Laying Rate: Cost (60) ÷ Price (140) = **42.9%**

The Opportunity Cost of Delayed Depopulation

Keeping a flock beyond its economic threshold costs the farm in two ways: **Direct Costs** (spending more than earning) and **Opportunity Costs** (delaying the next cycle). A 4-week delay can cost a 1,000-bird farm **XAF 1,000,000–1,500,000** in lost profits.

In-Cycle Culling: Performance & Revenue

Individual bird culling during the laying period is both a production management tool and a revenue event. Removing non-productive hens improves FCR and recovers live weight value mid-cycle.

Monthly Cull Impact (1,000 Birds):

Removing 2% (20 birds) monthly saves feed and generates sales.

Total combined benefit: **XAF 65,200/month**.

Over 40 weeks, this covers the vaccine cost for an entire cycle!

Pre-Depopulation Management

To maximize weight at sale, provide feed *ad libitum* for 4 weeks prior to depopulation. Target a **50–75g** body weight gain. Additionally, timing the sale for mid-afternoon—when crop fill is at its maximum—can add significant measurable weight compared to morning sales.

Market Channels for Spent Hens

Channel	Price/kg (XAF)	Revenue/1k Birds	Notes
Wholesale Trader	1,100	1,980,000	Buyer collects; lowest price.
Butcher (Direct)	1,350	2,280,000	Higher margin; requires transport.
Restaurant/Catering	1,700	2,860,000	Premium pricing; relationship based.
Live Market Retail	2,200	3,510,000	Highest price; high labor/time.

The Complete Depopulation Revenue Model

By combining optimized channel selection with the sale of poultry manure (which has a value of XAF 10,000–25,000 per tonne), a farm can significantly outperform the standard model.

Optimized Total Revenue: XAF 3,045,000 (approx. USD 5,075)

Standard Total Revenue: XAF 2,173,000 (approx. USD 3,622)

Incremental Gain: **XAF 872,000** (achieved through management strategy alone).

Summary: Spent hen revenue is not a fixed amount. It is a variable determined by financial intelligence. The final egg was laid weeks ago, but the farm is not finished earning.

