

Egg production comparison due to welfare of laying hens in Croatia



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Luneta d.o.o.



- Luneta d.o.o. = family company
- Hen farm built in 2012. – first aviary system in Croatia
- 48.000 hens in 2 hen houses, 15-16mil. cage free
eggs/year
- automated egg packing centre – 30.000 eggs/hour



Regulations for hen farms in Croatia

- laying hens whose production cycle started before Croatia became EU member can be kept in conventional cages latest 12 months after Croatia joined EU → 01.07.2014.



IT'S JUST NOT RIGHT! WE'RE GIRLS, WE NEED OUR OWN ROOMS!"

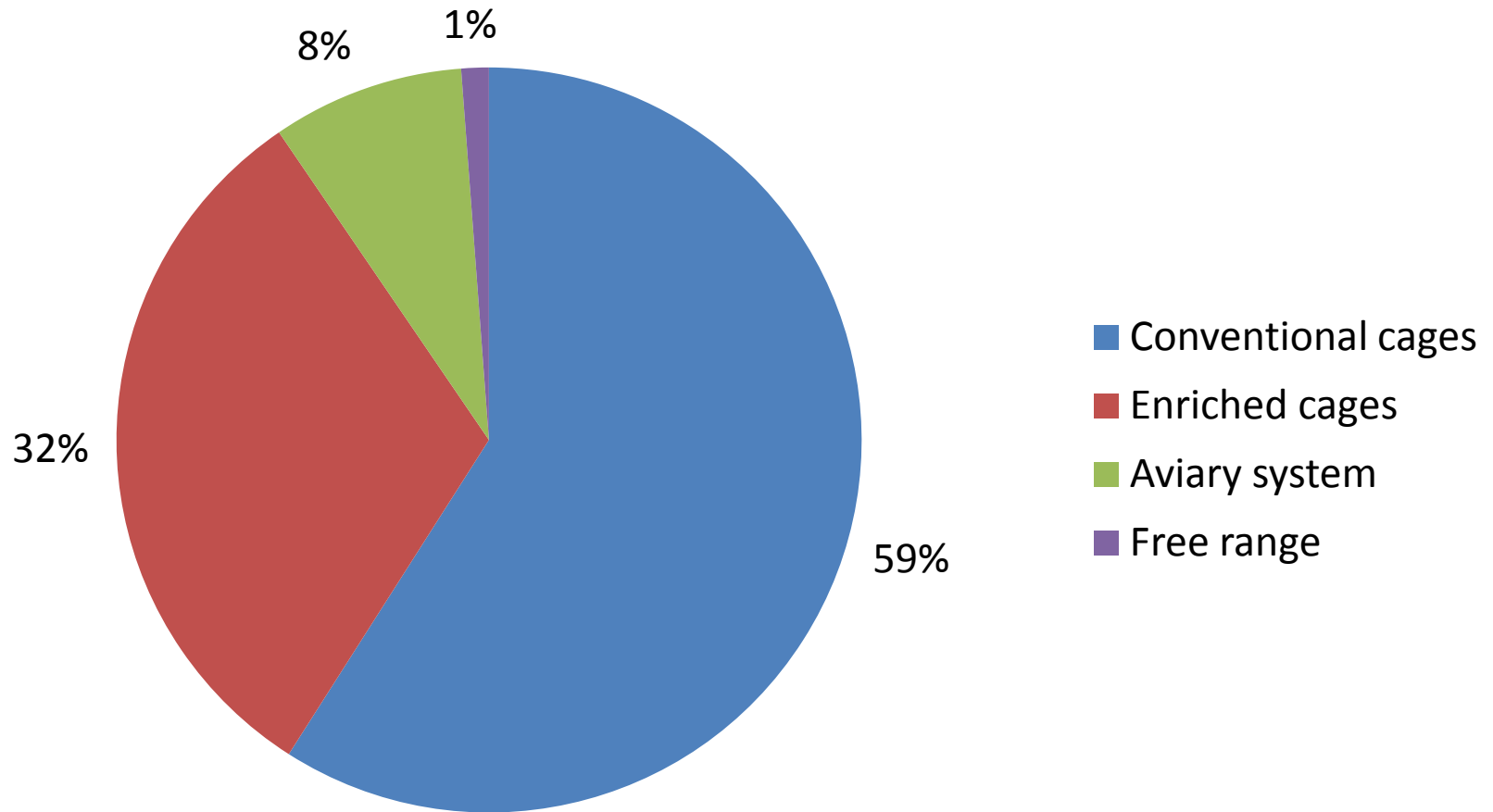
CARTOONS

Registry of laying hen farms, January 2014.

- 2.152.679 => total number of laying hens
- 1.270.533 => hens in conventional cages (85 farms)
- 676.878 => hens in enriched cages (22 farms)
- 179.393 => hens in aviary systems (16 farms)
- 25.725 => hens in free range (19 farms)
- 150 => organic eggs (1 farm)



Structure of keeping laying hens



Cages?



Aviary system?



Investing in aviary system

	Description				AVIARY		
					Quantity	Unit price (EUR)	Total (EUR)
					1.	Land	
2.	Building		m2	700	200,00	140.000,00	
3.	Equipment		EUR/pullet	10.000	19,00	190.000,00	
4.	Pullets		pcs	10.000	4,50	45.000,00	
5.	General costs		5% of investment			18.850,00	
6.	TOTAL INVESTMENT						395.850,00

Investing in cages

				CAGES		
Description				Quantity	Unit price (EUR)	Total (EUR)
1.	Land		m2	1.000	1,00	1.000,00
2.	Building		m2	350	200,00	70.000,00
3.	Equipment		EUR/pullet	10.000	13,00	130.000,00
4.	Pullets		pcs	10.000	4,10	41.000,00
5.	General costs		5% of investment			12.100,00
6.	TOTAL INVESTMENT					254.100,00

Investment difference aviary vs. cages


	AVIARY (€)	CAGES (€)	DIFFERENCE (€)
Land	2.000,00	1.000,00	1.000,00
Building	140.000,00	70.000,00	70.000,00
Equipment	190.000,00	130.000,00	60.000,00
Pullets	45.000,00	41.000,00	4.000,00
General costs	18.850,00	12.100,00	6.750,00
Total investment	395.850,00	254.100,00	141.750,00

INVESTMENT IN AVIARY SYSTEM IS 55,79 % HIGHER

Profit and loss account

AVIARY				
Description		Quantity	Unit price	Total (EUR)
Egg sales	egg/hen 307-2%	3.008.600,00	0,10	300.860,00
Hen sales	pcs 10000-8%	9.200,00	0,40	3.680,00
Total income				304.540,00

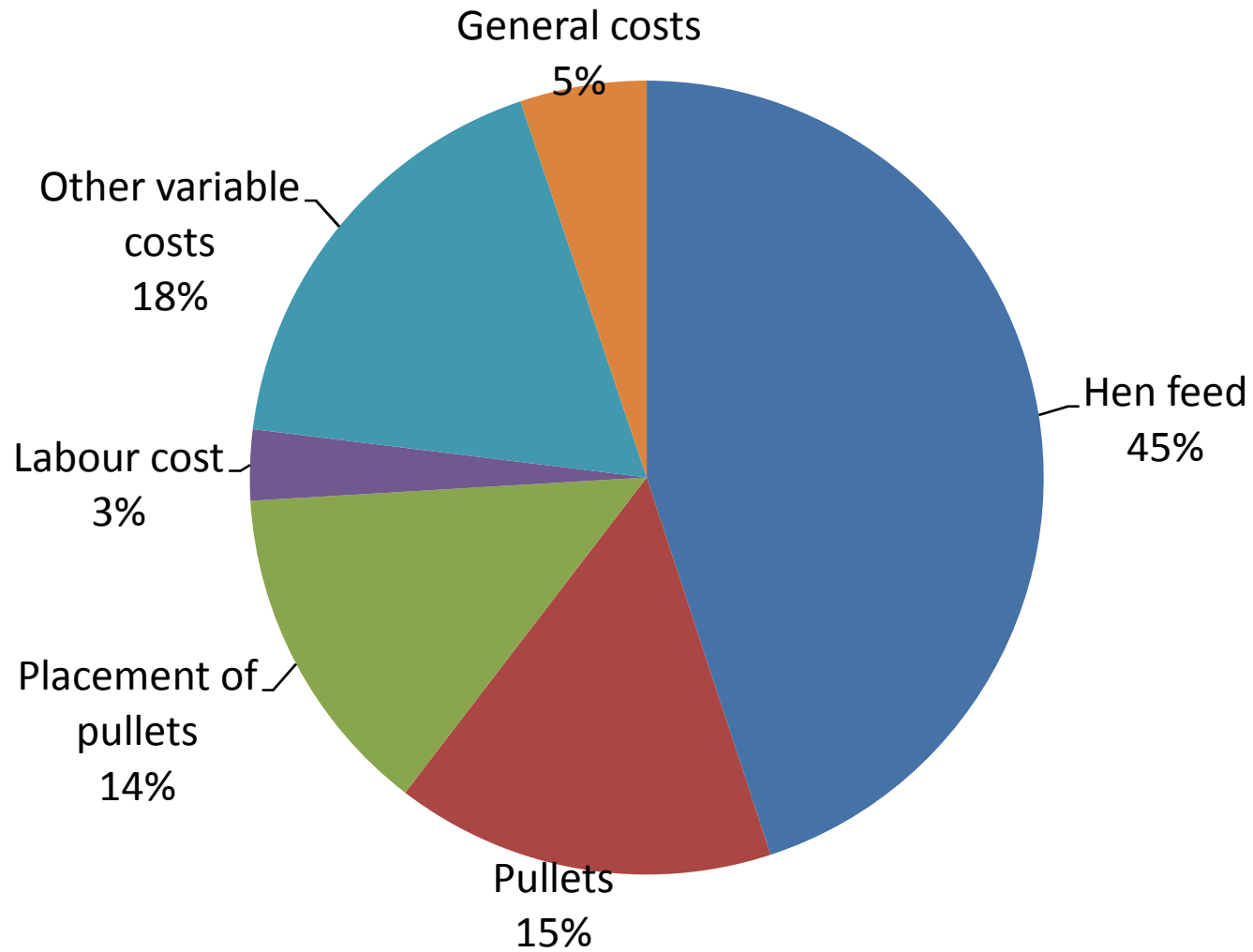
CAGES				
Description		Quantity	Unit price	Total (EUR)
Egg sales	egg/hen 315-1%	3.118.500,00	0,10	311.850,00
Hen sales	pcs 10000-6%	9.400,00	0,40	3.760,00
Total income				315.610,00


-11.070 (3,51%)
 less income in aviary

Profit and loss account

PRODUCTION COSTS STRUCTURE - AVIARY				
Description		Quantity	Unit price (€)	Total (€)
Hen feed	kg/egg sold 0,145	436.247,00	0,30	130.874,00
Pullets	pcs	10.000,00	4,50	45.000,00
Placement of pullets costs				39.770,00
- litter	1.000			
- amortization	29.770			
- maintenance	2.000			
- interest	7.000			
Labour cost	1 worker	12,00	700,00	8.400,00
Other variable costs				52.111,00
- electricity	7.000			
- cleaning material	2.000			
- packaging	39.111	300.860,00	0,13	
- protective clothes	4.000			
General costs				15.000,00
TOTAL COSTS				291.155,00

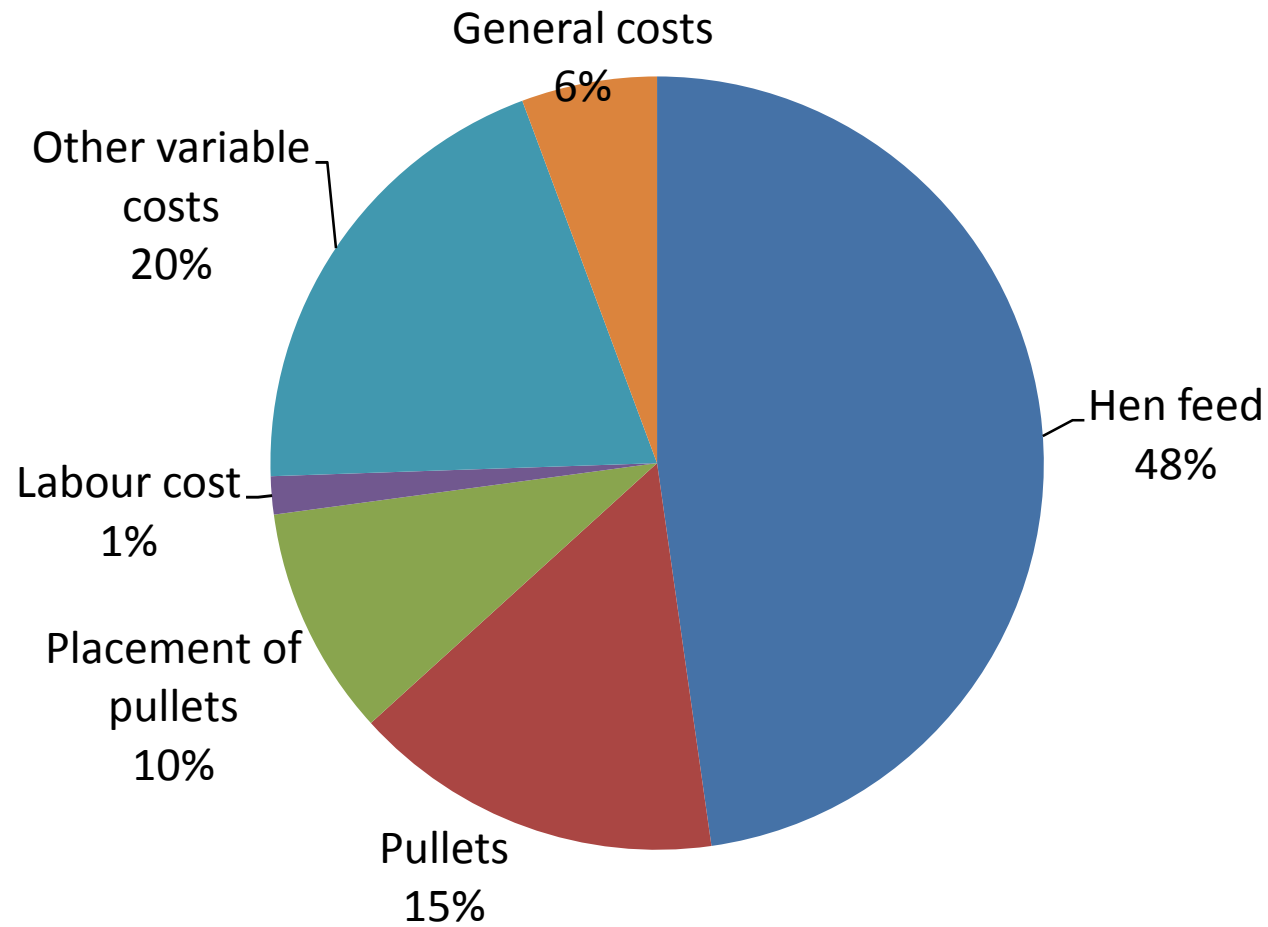
Production costs structure-aviary



Profit and loss account

PRODUCTION COSTS STRUCTURE - CAGES				
Description		Quantity	Unit price (€)	Total (€)
Hen feed	kg/egg sold 0,135	420.998,00	0,30	126.299,00
Pullets	pcs	10.000,00	4,10	41.000,00
Placement of pullets costs				25.420,00
- litter	0,00			
- amortization	18.920			
- maintenance	2.000			
- interest	4.500			
Labour cost	1 worker	12,00	350,00	4.200,00
Other variable costs				52.541,00
- electricity	7.000			
- cleaning material	2.000			
- packaging	40.541	300.860,00	0,13	
- protective clothes	3.000			
General costs				15.000,00
TOTAL COSTS				264.460,00

Production costs structure - cages



Cost difference aviary vs. cages

	AVIARY	CAGES	DIFFERENCE
TOTAL COSTS (€)	291.155,00	264.460,00	26.695,00



2,669535 €/hen
higher production costs in
aviary

Profit and loss account

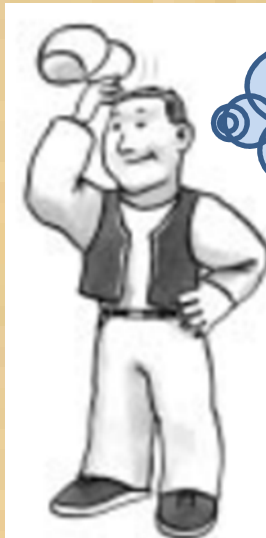
	AVIARY	CAGES
TOTAL INCOME	304.540,00	315.610,00
TOTAL COSTS	291.155,00	264.460,00
GROSS PROFIT	13.385,00	51.150,00
TAX 20%	2.677,00	10.230,00
NET PROFIT	10.708,00	40.920,00
ACCUMULATION	40.478,00	59.840,00



47,83 % >

Investment profitability (10 years of business, 6% discount rate)

	AVIARY	CAGES
PRESENT VALUE OF NET INFLOWS	6.062 €	246.995 €
RETURN ON INVESTMENT	0,02	1,00
PAYBACK PERIOD	10 years	6 years
INTERNAL RATE OF RETURN	6,29 %	22,55 %
BREAK EVEN POINT	80%	40%



What aviary egg sales price is acceptable for investors?

Increasing aviary egg sales price for 20% (0,12 €)

	AVIARY
PRESENT VALUE OF NET INFLOWS	350.185 €
RETURN ON INVESTMENT	0,91
PAYBACK PERIOD	6 years
INTERNAL RATE OF RETURN	21,19 %

Difference in profitability between aviary and cages needs to be recovered from the higher egg prices for eggs from aviary compared with cage eggs. In general, eggs from non-cage systems are sold at higher prices than eggs from cage systems. And in Croatia?

Informing consumers

- For egg producers in Croatia it is hard to achieve higher egg sales price for eggs that come from aviary compared to cage eggs
- Consumers are not well informed on different ways of keeping laying hens.
- By buying cage free eggs they can contribute to hen welfare.



Informing consumers



MINISTARSTVO
POLJOPRIVREDE,
RIBARSTVA I RURALNOG
RAZVOJA

UPRAVA ZA VETERINARSTVO

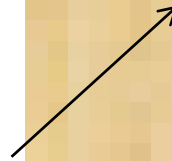
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www.mps.hr

ožujak 2011.

Educational brochures have to reach final consumers.

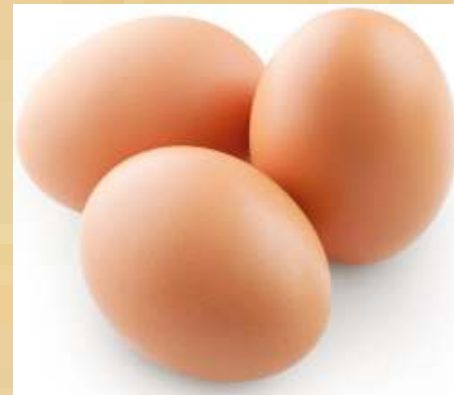


Proposals to encourage investing in cage free systems

- To encourage producers to invest in cage free systems on consumer price sensitive Croatian market all parties involved in hen welfare have to work together with government authorities
- If higher egg price for cage free eggs can not be achieved on the market, state authorities should consider to support this kind of production (tax relief, subsidies -> Rural development program?)

Cage-free farming is better for everyone.

- We have a responsibility to treat the animals that produce our food in a humane and decent way. (WSPA)
- Buy cage-free eggs, every time – and encourage others to do so (WSPA)



Thank you



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