

The Use of Sunflower Concentrate in Turkey Feed.

The quality of protein components in the diet is an important factor in poultry feeding. One product with a high protein content is the Hypro 44 sunflower protein concentrate. I'd like to share my own experience using this product to feed heavy-cross turkeys.

I first learned about Hypro 44 sunflower concentrate in 2024 at the Agro Animal Show international exhibition. I became interested in this product and reviewed its nutritional profile. I was particularly drawn to its high crude protein content and low crude fiber content.

Sunflower concentrate is a high-protein feed product obtained by processing sunflower seeds; its low fiber content ensures better nutrient absorption.

Compared to soybean meal, Hypro 44 sunflower concentrate has a lower fat content, which is very important for feeding young turkeys.

When comparing Hypro 44 sunflower concentrate to soybean meal, it has a higher content of the essential amino acid methionine.

Hypro 44 sunflower concentrate contains: crude protein – 44%, crude fat – 1.5%, crude fiber – 12%, calcium – 0.36%, phosphorus – 1.09%, metabolizable energy – 220 kcal/100 g. Major amino acids: lysine – 1.43%, methionine – 0.92%, threonine – 1.49%, valine – 2.08%, arginine – 3.46%.

Sunflower concentrate is effective for feeding laying hens, broiler chicks, turkeys, pigs, and fish.

Our company began using Hypro 44 sunflower concentrate in March 2025.

The product was gradually introduced into the control group's diet starting on the 46th day of rearing, beginning at 4% and increasing to 12%. Sunflower meal (crude protein 35%) was completely replaced, and soybean meal (crude protein 45%) was partially replaced.

The study results initially fell short of expectations (possibly because the turkeys were first fed the compound feed starting on the 46th day of rearing). However, when sunflower concentrate was introduced to another age group starting on day 1 of rearing, with a gradual increase from 5% to 14%, growth performance improved in the control group: feed conversion ratio decreased by 0.01%.

I would also like to note that when Hypro 44 sunflower concentrate was added, the feed pellets became more durable, which is also very important for feeding turkeys.

Currently, we use this product at all stages of turkey rearing and for all age groups.

Age group 1 (1–14 days) – 6%

Age group 2 (15–35 days) – 11%

Age group 3 (36–63 days) – 13%

Age group 4 (64–91 days) – 15%

Age group 5 (92–119 days) – 15%

Age group 6 (120–147 days) – 16%

The most important result for us is a reduction in feed conversion ratio; it's easier to optimize feed formulations.

I believe that in the future, Hypro 44 sunflower concentrate could replace soybean meal in poultry feed due to its price advantage.

My advice to farms that want to try this product: don't hesitate—start using it.

One potential mistake is an improperly formulated feed recipe. When adding it to the diet, pay attention to quality indicators and the maximum allowable inclusion rates for this product across different age groups.

Is there an economic benefit?

Yes, definitely. There is an economic benefit. Because the feed conversion ratio per kilogram of live weight has decreased, the costs of producing compound feed (raw materials, electricity, logistics) have correspondingly decreased.

Why did we decide to replace sunflower meal, even though it is cheaper?

One of the main reasons is that the quality of sunflower meal does not always meet our requirements; specifically, the product may have a high fiber content or a low crude protein content. The result of adding low-quality meal to the feed is poor feed digestion in the birds. The inclusion of sunflower concentrate in poultry feed depends on the bird's species, age, and the quality of the concentrate itself (fiber content). In general, sunflower concentrate is an excellent energy source. For feeding turkeys, it is recommended to use 5% for young birds and 15–20% for adult birds (with a fiber content of up to 10%). Exceeding the 20% limit can lead to an imbalance in the diet's amino acid composition. That is why it is important to strictly follow the recommendations for incorporating this or any other product into the diet.

We are currently purchasing concentrate at market price, so the price of compound feed formulations has gone up (compared to the prices of formulations that include sunflower meal). But ultimately, we see a 0.01% improvement in feed conversion ratio, which in turn offsets the higher cost of the compound feed. In poultry and livestock farming, there's a saying: "Cheap feed is expensive to feed."

Sample meal plans:

Structure of a Prescription	Units of measurement	Age, days					
		1 - 14	15- 35	36 - 63	64 - 91	92 - 119	120 - 147
SP Wheat - 8,8	%	20,00	19,00	18,00	20,00	18,00	20,00
SP Corn - 7,1	%	15,54	20,41	30,52	40,00	47,35	47,81
Soybean meal SP - 41,1	%	27,95	25,00	17,95	16,00	12,58	8,55
SP Soybean Meal - 44,3	%	22,51	16,23	13,64	2,98	0,00	0,00
SP Sunflower Concentrate - 44,0	%	6,30	11,30	13,26	14,82	15,73	16,18
Soybean oil	%	2,10	2,73	2,60	2,01	2,45	3,95
Lysine sulfate	%	0,54	0,52	0,61	0,80	0,89	0,85
Methionine	%	0,49	0,26	0,20	0,29	0,21	0,15
Threonine	%	0,09	0,05	0,05	0,11	0,14	0,10
Extra Salt	%	0,31	0,30	0,30	0,30	0,31	0,31
Monocalcium phosphate	%	1,67	1,64	0,89	0,47	0,34	0,24
Limestone flour	%	2,00	2,06	1,48	1,72	1,50	1,36
Premix	%	0,50	0,50	0,50	0,50	0,50	0,50
Quality indicators for turkey feeding recipes							
Indicators		Calculation					
Metabolic energy, kcal/100 g		274	280	289	298	306	317
Raw protein, %		27,50	26,00	23,50	21,00	18,00	16,50
Raw fat, %		5,50	6,04	5,57	4,87	5,53	6,89
Fiber,%		4,53	5,30	4,50	4,58	4,20	4,09
Ca, %		1,35	1,35	1,15	1,00	0,90	0,83
P,%		1,03	1,00	0,82	0,63	0,45	0,42
P , assimilated %		0,68	0,66	0,50	0,41	0,37	0,35
Na, %		0,15	0,15	0,15	0,15	0,15	0,15
Lysine, %		1,74	1,60	1,45	1,31	1,26	1,07
Assimilated Lysine, %		1,58	1,46	1,33	1,21	1,19	1,00
Metionine, %		0,87	0,65	0,57	0,54	0,50	0,45

Assimilated metionine, %	0,84	0,62	0,54	0,46	0,47	0,43
Metionine + cystine, %	1,30	1,06	0,95	0,85	0,79	0,73
Assimilated metionine + cystine, %	1,19	0,95	0,85	0,75	0,72	0,67
Threonine, %	1,10	1,01	0,90	0,83	0,70	0,66
Digestible threonine %	0,94	0,85	0,77	0,72	0,62	0,57
Valine, %	1,26	1,21	1,09	0,95	0,80	0,75
Assimilated valine %	1,11	1,06	0,96	0,85	0,71	0,67
Arginine, %	1,89	1,83	1,64	1,38	1,17	1,09
Digestible Arginine, %	1,74	1,69	1,51	1,27	1,07	1,00
Tryptophan, %	0,36	0,34	0,30	0,25	0,21	0,19
Assimilated tryptophan,%	0,32	0,30	0,26	0,22	0,18	0,17

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