



ORGANIQ is registered trademark of EGG ENERGY Ltd.

Under this brand we manufacture three fertilizer products:

Pellets

from poultry manure

Pellets

from free range poultry manure

Liquid

fertilizer concentrate



Use of concentrated poultry manure and unique production process allows us to make fertilizer which is very rich in organic micro and macro nutrients, especially phosphorus.

Pasteurization process in conformity with 1069/2009/EEC eliminates all pathogenic organisms and weed seeds.

Our customers are supplied with not only highly effective organic fertilizer, but also one which is easy to apply and store for up to 5 years.

Physical parameters allow fertilizer to be applied by any available fertilizer spreader or combine seeding machine in the market.

In a few years we have greatly expanded our fertilizer market with deliveries to hundreds of our customers across the European Union and outside it.

All fertilizer types are available in various packaging volumes and sizes. Please contact our team with any questions or inquiries.



“Farmers’ Gold” in new form

Jānis Vigovskis
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Germans’ have a saying: “A manure pit is where farmers’ keep their gold!” This saying is true even today, although now manure often can be found not in a manure pit but in beautifully designed packs.

Out of all types of organic manure, bird manure (including chicken manure) is the most valuable both in terms of nutrients and plant absorbability. The content of nutrients in bird manure depends on the bird’s species, age, living and feeding conditions, type of fodder and other factors.

The metabolism products in chickens are released as a mixture through urine and faeces amounting to a colloid greyish green mass with lumpy and foamy structure. Storing chicken manure in a pure form, it quickly layers and has a bad odour.

The biggest fraction of bird manure consists of 0 to 1.0 mm particles. Around 30% of the mass consist of particles smaller than 0.1 mm. Tiny fractions contain more organic substances (up to 80%) than large ones (up to 30%). The bird manure may also contain undigested food particles and bird feathers.

A large amount of nutrients in bird manure is water-soluble. In terms of their nutritional content, bird manure is better than any other type of organic fertilizers, but in terms of plant absorption degree bird manure does not fall behind even mineral fertilizers. Recalculated in dry matter, fresh bird manure contains up to 5.5% nitrogen, up to 4.5% phosphor and 2.5% potassium, along with magnesium and many other micro elements.

AVERAGE CHEMICAL CONTENT

in chicken manure and various livestock plant manure, %
(dry matter, Republic ZRA “Ražība” data)

Type of manure	N	NH ₄	P ₂ O ₅	K ₂ O	Moisture
Chicken	3.86	1.69	3.03	1.86	55.6
Cattle	2.28	0.72	1.01	2.60	75.6
Young stock	2.14	0.77	1.17	2.52	79.9
Pigs	3.12	1.18	1.63	1.67	77.7



APPROXIMATE CULTIVATION NORMS

for bird manure in agricultural cultures, t ha-1

(according to data gathered by various institutions)

Culture	Bird manure dry	natural moisture	granulated, fermented
Winter crops	3-4	13-15	0.8-1.0
Summer crops	3	8-10	0.5-1.0
Potatoes	4-5	15-20	1.0
Corn silage	4-5	15-20	1.0
Vegetables	6-8	20-25	1.0-1.5
Perennial herbaceous plant	5-8	10-15	1.0-2.0
Meadows and grasslands	-	15-20	1.0-2.0

Due to the high volume of moisture in fresh bird manure, it cannot be stacked in big piles; however, when stored in small piles, manure dries and forms deep cracks thus leading to higher rate of nutrient loss not only on surface but also in deeper layers. As per data gathered by Ukrainian scientists, when storing semi-liquid bird manure in field conditions according to the aforementioned approach, 52-82% nitrogen, 27-44% phosphor and 44% potassium are lost over the course of 5 months.

The right approach is to store bird manure in manure storage facilities where nutrient loss happens on a slower pace. It must be noted that, regardless of the storage approach, nitrogen losses in bird manure are unavoidable, because for birds the final product of nitrogen exchange is uric acid which amounts to 60% of the overall nitrogen substance content in bird manure. Due to uric bacteria and secretion of ferment ureases, uric acid disintegrates down to ammonium and carbon dioxide. This process takes place both with and without presence of oxygen and elevates pace when bird manure comes in contact with water which leads to loss of nitrogen as NH₃. Therefore, it is highly unadvised to store pure bird manure.

The loss of nitrogen in bird manure that has not yet disintegrated and does not contain ammonium nitrogen can be reduced by fermenting, drying and granulating bird manure in special machines. One of the largest egg producers in Latvia processes bird manure next to its production facility. The manure at first is fermented in a reactor, afterwards water is extracted therefrom and manure are pasteurized for 1 hour at 70°C, destroying pathogenic micro-organisms. Afterwards the hard fraction of the manure is granulated. As a result of fermentation, the plant nutrients in the manure take a form which is more easily absorbable by plants, while pasteurization destroys all pathogens. Granulated, fermented bird manure contains on average 4% N, 8% P₂O₅ and 1,2% K₂O. Over the course of drying and granulation, the physical characteristics of the bird manure

change. Bird manure granulation transforms manure into a pouring fertilizer. The diameter of granules is less than 5 mm. When storing dried, granulated bird manure with moisture under 10% in polyethylene or paper bags, there are practically no nitrogen losses for over a year. Furthermore, granulated bird manure significantly reduces its unpleasant smell and manure therefore can be disseminated with an ordinary dispenser of mineral fertilizer.

In terms of impact on the crop, bird manure is more similar to mineral fertilizer rather than regular cattle-shed manure. However, bird manure has better aftereffect than mineral fertilizer because a fraction of nitrogen therein is organic and slowly takes form which can be easily absorbed by plants.

A major part of phosphor which comes in bird manure as organic compounds is not fortified in soil as iron, aluminium and calcium phosphate, but after organic substance mineralization it is absorbed by plants. Therefore, bird manure phosphor is used with better results than mineral fertilizer phosphor.

Since bird manure is mostly nitrogen-phosphor fertilizer, its use often makes it necessary to use additional potassium fertilizer. When applying bird manure, it is crucial to be sure that manure is evenly disseminated and cultivated into the soil. Even distribution is important to avoid nests with high concentration of nutrients.

The cultivation norms of bird manure are always determined based on the requirements of cultures to be fertilized in terms of their need for nitrogen, as well as on nitrogen content in bird manure, because bird manure nitrogen greatly affects the crop outcomes. However, plants do not fully absorb nutritional elements laid in soil with bird manure. A fraction of manure is lost or transformed in a form less available to plants; therefore, when calculating dosages, always bear in mind coefficients of use of nutritional elements.

Thanks to modern technologies the most significant disadvantages of bird manure are prevented, making it also easier and more convenient to transport and use this type of manure.