

CONVENTIONAL



HYBRID AND CONVENTIONAL

Grønn Gjødssel springs from Norwegian poultry production, and we are still an active chicken producer. In 1985, the start-up for the production of pelleted organic fertilizers was based on raw materials from poultry production. Since then, the business has evolved into what is today called Grønn Gjødssel AS. The natural fertilizer / chicken manure is pelleted in its own factory in Rakkestad.

We have customers all over Europe, both in conventional and organic agriculture, lawn producers, golf courses and outlets at garden centers.

We constantly strive to satisfy the customer's desire for fertiliser type, packaging and quality. As a grain producer, we use our own fertiliser products. We can therefore guarantee that our products are very efficient and provide optimal and lush growth!

HYBRID FERTILISERS /UREA



DRIP- AND FOILANT FERTILISERS



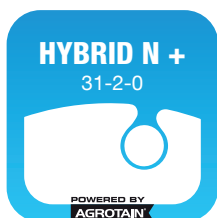
MINERAL FERTILISERS



AIDING AGENTS



HYBRID/UREA





Hybrid N is a new type of fertilizer. The unique thing about Hybrid N is that it contains both mineral fertilizers and organic matter, where by the name hybrid. Hybrid N is a complete fertilizer that contains all the plant nutrients.

Hybrid N is a complete fertilizer containing all the plant nutrients; NPK, magnesium, sulfur, calcium, micronutrients and hygienic organic matter. The mineral part of the nitrogen is Urea which is protected with Agrotain®. Development of Hybrid N started with the fertilizer Green 8K. The combination of mineral and organic fertilizers provides a product that preserves and enhances the unique properties of both types. A perfect combination.

Exclusive: Hybrid N is manufactured with our unique formulation. Our third element's binding properties in the composition enable Hybrid N's amazing properties.

Homogenized: The ingredients in Hybrid N are evenly mixed, ensuring equal content in each pellet. It provides even distribution of all nutrients.

Hygiene and composting: The raw materials are composted at high temperature over a long period of time. Ensures infectious fertilizer.

Pelleted: Hybrid N is pelleted in size 2-4 mm or dust-free crushed pellet sizes 1-2 mm. Easily maneuverable for immersion and eutrophication.

Soluble and renewable: Nutrients are readily available with a lasting effect. This gives the plants the necessary access to nutrients through growing season.

Value: We would argue that this is one of the most economical fertilizers available in the market. The fertilizer dissolves quickly.



Analysis

Nitrogen (N)	20 %
Phosphorus (P)	4 %
Potassium (K)	8 %
Calcium (Ca)	3,1 %
Magnesium (Mg)	0,1 %
Sulfur (S)	3,3 %
Boron (B)	9 ppm
Manganese (Mn)	135 ppm
Iron (Fe)	2510 ppm
Copper (Cu)	20 ppm
Zinc (Zn)	204 ppm
Silicon (Si)	126 ppm



Content

fishmeal
blood meal
Mineral fertilizer protected with Agrotain®
The fertilizer is chlorine-free. Hecto-litre weight: 0.75 kg.



Recommendation

50-100 kg / dda
Also good part fertilizer or as needed
The fertilizer is mulled down.
2 times fertilization at stretching of grain plants. Two times fertilization in grass / meadow eg fertilizer after the first sowing.
In collaboration with fertilizer advisor.

15/600 kg



Hybrid N + is for fertilizing grain, meadow, pasture etc. Hybrid N + contains urea with Agrotein and protein meal. Hybrid fertilizers contain both mineral fertilizers and organic matter, where by the name hybrid.

Hybrid fertilizer is a complete fertilizer that contains all the plant nutrients; NPK, magnesium, sulfur, calcium, micronutrients and hygienic organic matter. The mineral part of the nitrogen is urea protected with Agrotain.

The product is composted at high temperature for a long while. Production takes place in accordance with "Regulations on animal by-products, the Food Act and Regulations on organic fertilizers." Guaranteed free of coccidiostats.

Quite odorless. The finished product is pelletized in 4,5 mm size and cut short. The spreading properties are very good. When storing outside, the bag should be placed on a pallet with a thick tarpaulin covered over. When storing inside, the bag must be placed on a pallet.

Exclusive: Hybrid N + is manufactured with Green Fertilizer's unique formulation. The binding properties of our third element in the composition enable Hybrid N + 's amazing properties.

Homogenized: The ingredients in Hybrid N + are evenly mixed, ensuring equal content in each pellet. It provides even distribution of all nutrients.

Hygiene and composting: Raw materials are composted at high temperature over a long period of time. Ensures disinfected fertilizer.

Pelleted: Hybrid N + is pelleted in size 2-4 mm or dust-free crushed pellet sizes 1-2 mm. Easily maneuverable for immersion and eutrophication.

Soluble and renewable: Nutrients are readily available with a lasting effect. This gives the plants the opportunity for necessary access of nutrients through growing season.

Value: We would argue that this is one of the most economical fertilizers available in the Norwegian market.



Analysis

nitrogen	31 %
phosphorus	2,0 %
potassium	0,2 %
calcium	3,9 %
sulfur	0,2 %



Content

Mix of organically approved raw materials
Mineral fertilizer with inhibitor from Agrotain
The fertilizer is chlorine-free
Hectolitre weight: 0.8 kg



Recommendation

50-100 kg / dda
General fertilizer recommendation, quantity must be adjusted. Refer to soil and any leaf analysis, as well as consult your advisor, plant nutritional needs and crop level.

15/600 kg



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Hybrid K is for fertilizing grain, meadow, pasture etc. Contains urea with Agrotain and protein flour. Hybrid Fertilizers contain both mineral fertilizer and organic matter, of which the name hybrid. Hybrid fertilizer is a complete fertilizer that contains all the plant nutrients.

Hybrid K is a complete fertilizer and contains all nutrients; NPK, magnesium, sulfur, calcium, micronutrients and hygienic organic matter. The mineral part of the nitrogen is urea protected with Agrotain. The product is composted at high temperature for a long time according to public requirements.

Exclusive: Hybrid K is manufactured with Green Fertilizer's unique formulation. Our third element's binding properties in the composition enable Hybrid K's amazing properties.

Homogenized: The ingredients in Hybrid K are evenly mixed, ensuring equal content in each pellet. It provides even distribution of all nutrients. The fertilizer dissolves quickly.

Hygiene and composting: The raw materials are composted at high temperature over a long period of time. Ensures infectious fertilizer.

Pellets: Hybrid K is pelleted in size 2-4 mm or dust-free crushed pellets sizes 1-2 mm. Easily maneuverable for immersion and eutrophication.

Soluble and renewable: Nutrients are readily available with a lasting effect. This provides the plants with the necessary access to nutrients throughout the growing season.

Value: We would argue that this is one of the most economical fertilizers available in the market.

Grain

50 - 100 kg / daa

Great part fertilizer and as needed

Grass and meadow

50 - 80 kg / daa

The fertilizer is ground down by sowing.

Vegetables

50 - 100 kg / daa

with times fertilization in grass / meadow eg fertilizer after the first sowing.



Analysis

Nitrogen (N)	11 %
Phosphorus (P)	5 %
Potassium (K)	17 %
Calcium (Ca)	4,3 %
Magnesium (Mg)	0,01 %
Sulfur (S)	8,3 %
Boron (B)	6 ppm
Manganese (Mn)	52 ppm
Iron (Fe)	2523 ppm
Copper (Cu)	5 ppm
Zinc (Zn)	130 ppm
Silicon (Si)	65 ppm



Content

fishmeal
blood meal

Mineral fertilizer protected with Agrotain®

The fertilizer is chlorine-free.

Hectolitre weight: 0.75 kg.



Recommendation

50-100 kg / Ha
General fertilizer recommendation, quantity must be adjusted. Refer to soil and possibly leaf analysis, as well as consult your adviser, plant nutritional needs and crop level.

15/600 kg



Urea Plus is urea with inhibitor from Agrotain. Agrotain nitrogen stabilizer is an effective urease inhibitor. It is entirely possible to protect the nitrogen from evaporation and keep it available for plant uptake, thus optimizing the crop and minimizing environmental impact.

With 25 years of studies with excellent results on millions of hectares worldwide, Agrotain is a manufacturer that has shown that it is fully possible to protect the nitrogen from evaporation and keep it available for growth, thus optimize the crop and minimize environmental impact. Ensures the crop potential: Nitrogen loss due to loss of ammonium can be up to 40% when urea is not adequately incorporated into the soil.

Tested: Agrotain is backed by more than 1,000 trials and 20 years of results on millions of acres worldwide.

Low Temperature: Research shows that even at lower temperatures, nitrogen emissions are still a risk. Agrotain protects against cold loss.

Effective: Research shows that urea treated with Agrotain yields the same yield as ammonium nitrate (AN) fertilizer, but with fewer regulatory, transport and storage issues.

Value: One of the most cost effective ways to fertilize.

Grain

50 - 100 kg / daa

Great part fertilizer and as needed

Grass and meadow

50 - 80 kg / daa

The fertilizer is ground down at sowing.

Vegetables

50 - 100 kg / daa

The fertilizer dissolves quickly by 2 times fertilization in grass / meadow eg fertilizer after the first harvest.



Analysis

Nitrogen (N)	46 %
Phosphorous (P)	0 %
Potassium (K)	0 %



Content

UREA protected with Agrotain®



Recommendation

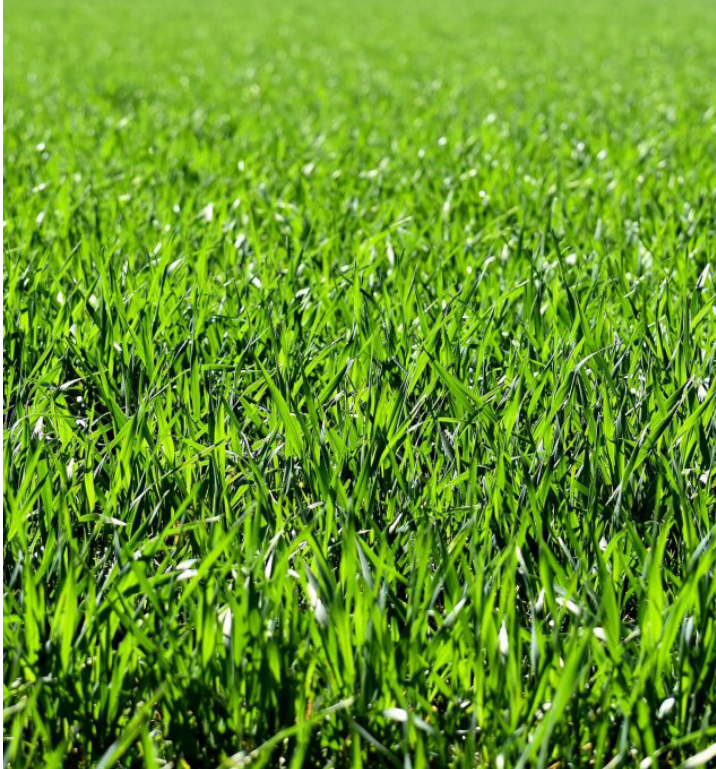
50-80 kg / dda

General fertilizer recommendation, quantity must be adjusted.

Refer to soil and any leaf analysis as well as consult your advisor, plant nutritional needs and harvest level.

15/600 kg

MINERAL FERTILISERS





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Monoammonium phosphate (MAP) is a fertilizer in the form of a free-flowing crystalline powder that dissolves quickly in water without precipitation. Ideal for drip irrigation systems, sprinkler irrigation systems and sprays. As a very effective source of phosphorus and nitrogen for plants, MAP is recommended for use at the beginning of the growing season when phosphorus availability is essential for the establishment of the root system.

MAP is mixed with other fertilizers to meet needs throughout the growth cycle. Not only is MAP an effective source of phosphorus, it also facilitates the absorption of phosphorus naturally present in the soil due to ammonium (NH_4^+) in MAP, which lowers the pH in the root zone and thus improves phosphorus availability. Plants fertilized with monoammonium phosphate readily absorb nitrogen and phosphorus necessary for plant growth and development. Spraying fertilizers on plant leaves or watering them using capillary irrigation systems will ensure a balanced supply of necessary materials to the plant.

Easily accessible - easily soluble, for immediate use.

Granular crystal shape provides flexibility.

Concentrated, little storage need, quick to disperse.

A quick source of nitrogen and phosphorus.

Low chloride, suitable for chloride sensitive crops.

No processing or waste products.

Cereals and oilseeds

Apply at the beginning of spring, to oilseed rape to optimize the synthesis of yield, protein and oil. For wheat to increase yield and to ensure grain protein quality. On painted barley for yield and quality.

Peas

Apply directly in seedbed or after germination. This is a zero-N fertilizer that brings readily available sulfur to the crop, and can therefore be picked up by the plant at an early stage to feed the nitrogen fixation, which occurs in the roots and for protein synthesis in the plant.

Meadow

The use of livestock manure is not a safe source of available phosphate, and is best regarded as maintaining reserves. MAP can be applied in accordance with nitrogen and phosphorus requirements to achieve optimal grass growth throughout the season in proper N: P ratio.



Analysis

N-NH ₄ (Ammonia)	12,1 %
Total P ₂ O ₅	61,4 %
P	26,8 %
N + P ₂ O ₅	73,5 %
Analysis	98,8 %
pH 1% solution	4,2 - 4,8
Insoluble substances	< 0,05 %
Sulfate (SO ₃)	< 0,100 %
Cadmium (Cd)	< 1 ppm



Content

Nitrate-nitrogen

- Directly available for plant uptake provides rapid and safe growth.
- Preferred nitrogen fertilizer form for most cultures.
- Improves the plant's absorption of potassium, calcium and magnesium.

Phosphorus

Root development - high phosphorus levels in the medium during planting or transplanting will enhance its culture and growth



Recommendation

Refer to soil and any leaf analysis, as well as consult your advisor, plant nutritional needs and crop level. MAP can apply before growth starts in the spring. The goal is often to adapt the phosphorus requirements to the nitrogen requirements of the crop. Where the amount of nitrogen is varied, for example in precision fertilizers, the amount can be varied to best match the total nitrogen use.

25 kg/1000 kg



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Kaliumsulfat



Potassium sulphate(kaliumsulfat) is the ideal product for mixing with other fertilizers. Combined with one or two other components, it has a wide range of applications, giving the grower a fertilizer tailored to the needs of the crop. The granular shape makes it easy to handle and mix the product with other granular products without dust problems.

Mineral reserves in the soil always go down during cultivation. But not always, for example, most of the potassium in a harvested grain crop will be present in the straw. So when it is commercially reasonable to sell straw, it is important to increase potassium inputs to compensate. The potassium in Potassium Sulfate complements routine fertilizer applications.

Safety and flexibility - The properties of Potassium Sulfate allow for both early and late application, without the risk of leaching or salt damage to the soil.

The granules are produced via a special four-step process. After compressing the SOP from powder to solid, these are crushed and then granulated. The granules are then sieved to remove large and small particles and transported to a separate unit for dusting. Compressed air is then shot on the granules to remove the dust, and finally the granules are coated with a particularly thin layer to keep them dust-free.

Cereals and oilseeds

Apply at the beginning of spring, to oilseed rape to optimize the synthesis of yield, protein and oil. For wheat to increase yield and to ensure grain protein quality. On painted barley for yield and quality.

Peas

Apply directly in the seedbed or immediately after germination. A zero-N fertilizer that brings readily available potassium and sulfur to the crop, and can therefore be taken up by the plant at an early stage to feed the nitrogen fixation, which occurs in the roots and for protein synthesis in the plant.

Grass

Livestock manure is not a safe source of available potassium or sulphate, and is best regarded as maintaining soil reserves. Potassium sulphate should be applied in accordance with nitrogen requirements as needed to achieve optimal grass growth throughout the season in proper K: N: S ratio.



Analysis

Potassium (K ₂ O)	min 50%
Sulfur (S)	min 17%
Chlorides (Cl)	max 2.5%
Moisture	Max 1.0%
hardness	2.5 kg / grain
Particles above 2 mm	75-95%
Particles above 5 mm	max. 5%



Content

The pure mineral form of potassium sulphate, arcanite, is relatively rare. Potassium sulphate is therefore usually separated from a number of natural minerals:

- Kainite, $\text{MgSO}_4 \cdot \text{KCl} \cdot \text{H}_2\text{O}$
- Picromerite, $\text{K}_2\text{SO}_4\text{MgSO}_4\text{H}_2\text{O}$
- Leonite, $\text{K}_2\text{SO}_4\text{MgSO}_4\text{H}_2\text{O}$
- Langbeinite, $\text{K}_2\text{Mg}_2(\text{SO}_4)_3$
- Aftalitt $\text{K}_3\text{Na}(\text{SO}_4)_2$
- Polyhalitt, $\text{K}_2\text{SO}_4\text{MgSO}_4\text{CaSO}_4\text{H}_2\text{O}$

15/1000 kg



Recommendation

Refer to soil and leaf analysis, as well as consult your advisor, plant nutritional needs and crop level. Potassium sulphate can be applied before growth increases in the spring. The goal is often to adapt the sulfur requirements to the potassium needs of the crop.

DRIP- & FOILANT



Agroleaf Power T	Agroleaf Power N	Agroleaf Power P	Agroleaf Power K	Agroleaf Power Ca	Agroleaf Power Mg
Agroleaf Liquid P	Agroleaf Liquid Zn	Agroleaf Liquid Mn	Agroleaf Liquid MB	Agroleaf Liquid N	Agroleaf Liquid Ba NPK
Agroleaf Liquid K	Agroleaf Liquid N Boost	Agroleaf Liquid Fe	Agroleaf Liquid Mg	Agroleaf Liquid Ca	Agroleaf Liquid Total+
Agroleaf Liquid Man Z+	Agroleaf Liquid Zink M+	Agroleaf Liquid B 10	Agroleaf Liquid Moly C	Agroleaf Crop Cereal	Agroleaf Crop Oilseed
Agroleaf Crop Potato	Agroleaf Special Zn	Agroleaf Special Mn	MAP		

HELPING AGENTS





Agrotain is a urease inhibitor that reduces ammonia volatility after fertilization. Urea inhibitors reduce the rate of conversion from urea in manure to ammonium (enzymatic hydrolysis), which can then quickly convert to gaseous ammonia and be lost in the air or convert to nitrate (NO₃-) and be exposed to leaching losses. By staying longer in urea form, fertilizer can more slowly become available to plants, increasing the chance of being there when the crop needs it.

Urea is an escape artist. If it is applied to the soil surface, it must be incorporated by tillage, rain or irrigation shortly after application. Otherwise, losses during evaporation can be significant. When urea is broken down, ammonia is released. This process is facilitated by an enzyme called urease. If urea is incorporated, ammonia is converted to ammonium and will be retained in the soil. However, if urea remains on the surface, much of the ammonia will be lost to the atmosphere.

Typically, 10% to 20% of urea nitrogen can be lost within five days with the greatest loss in the first few days after application. The rate of loss increases with moisture on the soil surface, temperature, soil pH and wind. Agrotain stops the activity of the urease enzyme for up to 14 days. If urea is incorporated by tillage, rain or irrigation during this period, the losses should be minimal.



Analysis

N-(n-butyl)-tiofosfortriamid	40-70 %
Harmless components	30-60 %
Harmless dye	< 3 %



Content

N- (n-butyl) tiofosforsyretriamid (NBPT) is an organophosphorus compound of the formula $SP(NH_2)_2(NHC_4H_9)$.



Recommendation

Refer to soil and any leaf analysis, as well as consult your advisor, the plant's nutritional needs and crop level.
As a general rule, approximately 0.5% by weight of Agrotain is mixed with urea.

10- 500 kg