

BORN FOR GROWING



**FENIX**  
BORN FOR GROWING



The product range of FENIX fertilizers brings your turf just the nutrients it needs.

When developing FENIX fertilizers, we focused on the requests and knowledge coming from professional greenkeepers.

#### **Equilibrated Granulation**

Equilibrated fertilizer-granulation is important for the turf to be fertilized evenly. In fact, granulation directly influences quality appearance of the turf and uniformity of the turf area, which is the most important thing we expect from our turf and is what new FENIX fertilizers provides.

#### **Fertilizers with Slow-Releasing Nitrogen**

Professionals are interested in long-term and equal accessibility of nutrients. They don't want all nitrogen to act at once. FENIX contains two different forms of controlled nitrogen-release, CRF and MU.

#### **Controlled-Nitrogen Release with Different Content**

There are fertilizers having 25 - 50 % of nitrogen with controlled release. You can apply FENIX with 25 % of CRF for the grass growth on light soils with nutritional deficiency, supplying a higher amount of nutrients to immediately fill the deficiency up. Regularly fertilized turfs, being in good condition, shall be treated with a fertilizer comprising 40 % or 50 % of nitrogen with controlled release.

#### **Representation of all Important Nutrients**

Do you want to fertilize your lawn turf for a whole year, using phosphorous fertilizers? Do you want to use the ratio of nutrients suitable for fast-growing newly-seeded areas? Or do you prefer higher potassium-content with your fertilizer? You will always find the answer in the FENIX product-range. FENIX fertilizers are based on the requirements of professional turf-growers and are designated for turfs. FENIX fertilizers contains magnesium, an important element for excellent appearance and a good health condition of your turf.

## FENIX Fertilizers – BORN FOR GROWING

These fertilizers have been developed using the most recent theoretic knowledge acquired both in the research with experts in nutrition of plants and from practical experience of greenkeepers and lawn-installers. They are ideal for adequate fertilization planing.

### Advantages:

- A sufficient nitrogen ratio is in easily acceptable forms. That's why turf growth has been significantly reacting already within one week since fertilization.
- A part of nitrogen is in the form that starts to progressively act with some delay to provide for equal nutrition for some 2 - 3 months after applying the fertilizer.
- The fertilizers are conceived (with their nutrients' ratio) to respect different requirements of plants according to their growth and changeable conditions in different seasons of the year.
- 4 applications have a similar effect like 14 applications of classical fertilizers.
- It helps have abundant, strong, healthy, richly green turf.
- They help reduce stress – summer dryness and drought, winter frost and chill.
- The calibration of their granules ensures a much better equal application of the fertilizers.

### Use:

**Particularly for golf courses and their fairways, rough, grassy sporting playgrounds. We recommend its use for turfs requiring a high-quality growth state, permanent and equal growing with simultaneously decorative appearance.**

One application provides for equal nutrition for a period of 2 - 3 months. This helps to choose a suitable fertilizer composition, according to current needs of the growth depending on the season of the year, climate conditions and the turf growth condition. There is a choice of fertilizers with controlled nitrogen release (**Premium, Pro**) or gradual nitrogen release (**Balanced**), happening either using polymer coat on the urea or chaining molecules of urea (Balanced). Those special forms will provide a prolonged time of the fertilizer effect.

Nitrogen is gradually-released for the needs of plants to minimise nitrogen loses when fertilizing. The greatest advantage of those fertilizers is their ability of always choosing a suitable fertilizer composition. At the same time, just 3-4 applications are needed during the year to have equally growing turf. Compared to standard fertilizers, where you have to fertilize your turf about 14 times a year. Contrary to fertilizers with a whole-year action, the ratio of nutrients can be gradually changed during the



year according to the current status of your turf grown, soil conditions and especially in compliance with variable climate conditions (spring, summer, autumn). That's why these fertilizers allow you to react to changing vegetation needs during the year.

The fertilizers don't contain **nitrogen in the nitrate form (NO<sub>3</sub>)** to minimise nitrates being washed out of soil. Moreover, gradually releasing **coated** nitrogen allows for less frequent fertilization with simultaneously limiting its losses. Its granules are standard-calibrated to 2-3 mm or 1-2,2 mm. That very limited interval of the granule-size provides for the fertilizer to be applied much more equally.





## FENIX Balanced Spring 22-05-11+2MgO

FENIX Balanced Spring  
slow release fertilizer

40% MU 2-3 MONTH 20 KG



Fertilizer NPK (Mg) containing crotonyl-dendi-urea or isobutyl-dendi-urea, alternatively urea-formaldehyde 22-05-11 (+2MgO) mixed fertilizer

22 % N Total nitrogen

6,6 % N-NH<sub>4</sub> Ammonia nitrogen

6,6 % N-NH<sub>2</sub> Urea nitrogen

8,8 % N Urea-formaldehyde nitrogen

3,3 % N Nitrogen of urea-formaldehyde soluble just in hot water

4,6 % N Nitrogen of urea-formaldehyde soluble just in cold water

5 % P<sub>2</sub>O<sub>5</sub> Phosphorus pentoxide soluble in neutral ammonium citrate and in water (= 2,2 % P Phosphorus)

4 % P<sub>2</sub>O<sub>5</sub> Phosphorus pentoxide, water-soluble (= 1,7 % P Phosphorus)

11 % K<sub>2</sub>O Potassium oxide, water-soluble (= 9,1 % K Potassium)

2 % MgO Magnesium oxide, water-soluble (= 1,2 % Mg Magnesium)

# FENIX Balanced

slow release fertilizer

## Balanced Range

The unique range of fertilizers using long-term effect of nitrogen incorporated in oligomers with different length, composed of chained urea molecules.

This range differs from the Pro- and the Premium product-ranges because of containing **40 % of the total nitrogen quantity in the form of MU (chained urea)**. It is a fertilizer with gradually releasing nitrogen due to microbial activity in the ground. This will allow the fertilizer to have effect for a longer period of time.

The fertilizers in this product range contain phosphorus in special formulas suitable for all times of year for a more balanced supply of phosphorus to plants. In addition, the Balanced product-range is also typical for its complex contents of all basic nutrients: N, P, K, Mg, S. Another advantage of the Balanced fertilizer-range consists of its reduced content of chlorides to minimise the risk of over-salting soil with ballast chlorides.

The MU nitrogen-form is just little mobile in the ground so washing nitrogen out of soil is really limited even in highly permeable sandy soils of playing areas or courses.

## FENIX Balanced Summer 19-08-19+2MgO

FENIX Balanced Summer  
slow release fertilizer

40% MU 2-3 MONTH 20 KG



Fertilizer NPK (Mg) containing crotonyl-dendi-urea or isobutyl-dendi-urea, alternatively urea-formaldehyde 19-08-19 (+2MgO) mixed fertilizer

19 % N Total nitrogen

3,6 % N-NH<sub>4</sub> Ammonia nitrogen

7,8 % N-NH<sub>2</sub> Urea nitrogen

7,6 % N Urea-formaldehyde nitrogen

2,9 % N Nitrogen of urea-formaldehyde soluble just in hot water

3,9 % N Nitrogen of urea-formaldehyde soluble just in cold water

8 % P<sub>2</sub>O<sub>5</sub> Phosphorus pentoxide soluble in neutral ammonium citrate and in water (= 3,5 % P Phosphorus)

7 % P<sub>2</sub>O<sub>5</sub> Phosphorus pentoxide, water-soluble (= 3 % P Phosphorus)

19 % K<sub>2</sub>O Potassium oxide, water-soluble (= 15,7 % K Potassium)

2 % MgO Magnesium oxide, water-soluble (= 1,2 % Mg Magnesium)

## FENIX Balanced Autumn 13-05-24+3MgO

FENIX Balanced Autumn  
slow release fertilizer

40% MU 2-3 MONTH 20 KG



Fertilizer NPK (Mg) containing crotonyl-dendi-urea or isobutyl-dendi-urea, alternatively urea-formaldehyde 13-05-24 (+3MgO) mixed fertilizer

13 % N Total nitrogen

3,4 % N-NH<sub>4</sub> Ammonia nitrogen

4,4 % N-NH<sub>2</sub> Urea nitrogen

5,2 % N Urea-formaldehyde nitrogen

2 % N Nitrogen of urea-formaldehyde soluble just in hot water

2,7 % N Nitrogen of urea-formaldehyde soluble just in cold water

5 % P<sub>2</sub>O<sub>5</sub> Phosphorus pentoxide soluble in neutral ammonium citrate and in water (= 2,2 % P Phosphorus)

4 % P<sub>2</sub>O<sub>5</sub> Phosphorus pentoxide, water-soluble (= 1,7 % P Phosphorus)

24 % K<sub>2</sub>O Potassium oxide, water-soluble (= 20 % K Potassium)

3 % MgO Magnesium oxide, water-soluble (= 1,8 % Mg Magnesium)



# FENIX Premium

controlled release fertilizer

## Premium Range

The unique range of fertilizers to achieve equal nutrition of good turf areas.

This range contains **50 % of the total nitrogen quantity**, in form of urea granules coated with a polymer layer, a special coat for the fertilizers' long-lasting effect.

The range also emphasises a different ratio of basic nutrients according to different seasons of the year. The Premium fertilizer-range has an increased content of magnesium, compared to the Balanced product-ranges, giving the turf a lot richer green coloration. In addition, the Premium fertilizer-range is typical for its complex content of all basic nutrients: N, P, K, Mg, S.

Another great advantage of the fertilizers in the Premium product range is its chloride-free nature. In fact, they don't burden soil with chlorides and they minimise the risk of over-salting the ground. That's why this range of fertilizers is the most suitable for really highly intensively fertilized playing areas or courses, for turfs with insufficient drainage and on salted soils.

### FENIX Premium Spring 22-05-11+3MgO

FENIX Premium Spring  
controlled release fertilizer

50% CRF 2-3 MONTH 20 KG



Fertilizers NPK (Mg) 22-05-11 (+3MgO) mixed fertilizer, with a low chlorine content: 22% N Total nitrogen

22 % N Total nitrogen  
5,2 % N-NH<sub>4</sub> Ammonia nitrogen  
16,8 % N-NH<sub>2</sub> Urea nitrogen

5 % P<sub>2</sub>O<sub>5</sub> Phosphorus pentoxide soluble in neutral ammonium citrate and in water (= 2,2 % P Phosphorus)  
4 % P<sub>2</sub>O<sub>5</sub> Phosphorus pentoxide, water-soluble (= 1,7 % P Phosphorus)

11 % K<sub>2</sub>O Potassium oxide, water-soluble (= 9,1 % K Potassium)  
3 % MgO Magnesium oxide, water-soluble (= 1,8 % Mg Magnesium)

### FENIX Premium Summer 19-00-19+3MgO

FENIX Premium Summer  
controlled release fertilizer

50% CRF 2-3 MONTH 20 KG



Fertilizers NK (Mg) 19-19 (+3MgO) mixed fertilizer, with a low chlorine-content

19 % N Total nitrogen  
2,5 % N-NH<sub>4</sub> Ammonia nitrogen  
16,5 % N-NH<sub>2</sub> Urea nitrogen

19 % K<sub>2</sub>O Potassium oxide, water-soluble (= 15,8 % K Potassium)  
3 % MgO Magnesium oxide, water-soluble (= 1,8 % Mg Magnesium)

### FENIX Premium Autumn 13-00-26+3MgO

FENIX Premium Autumn  
controlled release fertilizer

50% CRF 2-3 MONTH 20 KG



Fertilizers NK (Mg) 13-26 (+3MgO) mixed fertilizer, with a low chlorine-content

13 % N Total nitrogen  
2,1 % N-NH<sub>4</sub> Ammonia nitrogen  
10,9 % N-NH<sub>2</sub> Urea nitrogen

26 % K<sub>2</sub>O Potassium oxide, water-soluble (= 21,6 % K Potassium)  
3 % MgO Magnesium oxide, water-soluble (= 1,8 % Mg Magnesium)





# FENIX Pro

controlled release fertilizer

## Pro Range

The Fenix Pro product line has been designed to provide uniform nutrition to professional turf.

Fenix Pro is characterized by a greater amount of controlled-release nitrogen from **40% to 47%** in the form of CRF, composed of granules of urea coated with a layer of polymer, thereby ensuring a prolonged effect of the fertilizer. The line mainly focuses on the ratio of nutrients based on different seasons of the year and thus the needs of the turf.

In addition to all the basic nutrients: N, P, K, S, the Pro line has an increased magnesium content which keeps the grass greener. It is intended for regularly fertilized lawns, requiring a fresh and green appearance at all times.

Two products of this line have been developed with finer granulation, perfectly adapted to closer cut turf and at the same time ensuring more uniform spreading.

Fenix Pro fertilizers are low in chlorine, thus limiting the risk of excess soil salinity.

### FENIX Pro Starter 19-19-05+2MgO

FENIX Pro Starter **47% CRF** 3 MONTH 20 KG 1-2.2 mm

NPK (Mg,S) fertilizer 19-19-5 (+2MgO+18SO<sub>3</sub>) blend, low in chloride

- 19 % N Total nitrogen
  - 10 % N-NH<sub>4</sub> Ammoniacal nitrogen
  - 9 % N-NH<sub>2</sub> Urea nitrogen
- 19 % P<sub>2</sub>O<sub>5</sub> Phosphorus pentoxide soluble in neutral ammonium citrate and in water (= 8,3 % P Phosphorus)
  - 17 % P<sub>2</sub>O<sub>5</sub> Phosphorus pentoxide water-soluble (= 7,4 % P Phosphorus)
- 5 % K<sub>2</sub>O Potassium oxide, water-soluble (= 4,1 % K Potassium)
- 2 % MgO Magnesium oxide, water-soluble (= 1,2 % Mg Magnesium)
- 18 % SO<sub>3</sub> Sulphur trioxide water soluble

### FENIX Pro Spring&Summer 22-05-11+3MgO+TE

FENIX Pro Spring & Summer **40% CRF** 2-3 MONTH 20 KG 1-2.2 mm

NPK (Mg,S) fertilizer 22-5-11 (+3MgO+26SO<sub>3</sub>) blend, low in chloride

- 22 % N Total nitrogen
  - 3,5 % N-NH<sub>4</sub> Ammoniacal nitrogen
  - 18,5 % N-NH<sub>2</sub> Urea nitrogen
- 5 % P<sub>2</sub>O<sub>5</sub> Phosphorus pentoxide soluble in neutral ammonium citrate and in water (= 2,2 % P Phosphorus)
  - 4 % P<sub>2</sub>O<sub>5</sub> Phosphorus pentoxide water-soluble (= 1,7 % P Phosphorus)
- 11 % K<sub>2</sub>O Potassium oxide, water-soluble (= 9,1 % K Potassium)
- 3 % MgO Magnesium oxide, water-soluble (= 1,8 % Mg Magnesium)
- 23 % SO<sub>3</sub> Sulphur trioxide water soluble

### FENIX Pro Autumn 13-05-16+2MgO

FENIX Pro Autumn **40% CRF** 3 MONTH 20 KG 1-2.2 mm

NPK (Mg,S) fertilizer 13-5-16 (2 MgO, 28 SO<sub>3</sub>) blend, low in chloride

- 13 % N Total nitrogen
  - 7,5 % N-NH<sub>4</sub> Ammoniacal nitrogen
  - 5,5 % N-NH<sub>2</sub> Urea nitrogen
- 5 % P<sub>2</sub>O<sub>5</sub> Phosphorus pentoxide soluble in neutral ammonium citrate and in water (= 2,2 % P Phosphorus)
  - 4,5 % P<sub>2</sub>O<sub>5</sub> Phosphorus pentoxide water-soluble (= 1,9 % P Phosphorus)
- 16 % K<sub>2</sub>O Potassium oxide, water-soluble (= 13,2 % K Potassium)
- 2 % MgO Magnesium oxide, water-soluble (= 1,2 % Mg Magnesium)
- 28 % SO<sub>3</sub> Sulphur trioxide water soluble



# FENIX

controlled release fertilizer

## FENIX First & FENIX Basic

Basic professional fertilizers with controlled nitrogen release. Designed for a better start of the season and/or as a boost before the end of the season, in early September.

These fertilizers are characterized especially by their **25% of urea coated** and by their **excellent price-performance ratio**, granular fertilizers for sports fields, golf courses, fairways, semi-roughs or even ornamental lawns.

Nutrients are mixed in order to achieve the best performance and longevity of the fertilizers. After application, the immediate greening effect will be visible and the polymer-coated nitrogen, CRF technology (First) or the slow nitrogen by the MU technology (Basic), will ensure a long lasting effect.

Fenix fertilizers First and Basic have been developed for use from spring until October on sandy, easily permeable soils with good drainage function and for less intensively maintained lawns.

Fertilizers do not contain nitrogen as nitrate, which limits the risk of leaching.

### FENIX First 21-05-06+2,5MgO

FENIX First  
controlled release fertilizer

25% CRF 2-3 MONTH 20 KG



NPK (Mg) fertilizers 21-5-6 (+2,5 MgO) blend, low in chloride

21 % N Total nitrogen
5,8 % N-NH <sub>4</sub> Ammoniacal nitrogen
15,2 % N-NH <sub>2</sub> Urea nitrogen
5 % P <sub>2</sub> O <sub>5</sub> Phosphorus pentoxide water-soluble (= 2,2 % P Phosphorus)
4,0 % P <sub>2</sub> O <sub>5</sub> Phosphorus pentoxide water-soluble (= 1,7 % P Phosphorus)
6 % K <sub>2</sub> O Potassium oxide, water-soluble (= 5 % K Potassium)
2,5 % MgO Magnesium oxide, water-soluble (= 1,5 % Mg Magnesium)

### FENIX Basic 21-05-06+3MgO+TE

FENIX Basic  
slow release fertilizer

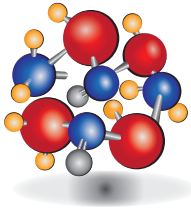
25% MU 2-3 MONTH 20 KG



Fertilizer NPK (Mg) containing crotonyl-dendi-urea or isobutyl-dendi-urea, alternatively urea-formaldehyde 21-05-06 (+3MgO) mixed fertilizer

21 % N Total nitrogen
8,2 % N-NH <sub>4</sub> Ammoniacal nitrogen
7,3 % N-NH <sub>2</sub> Ammoniacal nitrogen
5,2 % N-NH <sub>2</sub> Nitrogen from urea formaldehyde
2,0 % N-NH <sub>2</sub> Nitrogen from urea formaldehyde that is only soluble in hot water
2,1 % N-NH <sub>2</sub> Nitrogen from urea formaldehyde that is soluble in cold water
5 % P <sub>2</sub> O <sub>5</sub> Phosphorus pentoxide water-soluble (= 2,2 % P Phosphorus)
4 % P <sub>2</sub> O <sub>5</sub> Phosphorus pentoxide water-soluble (= 1,7 % P Phosphorus)
6 % K <sub>2</sub> O Potassium oxide, water-soluble (= 5 % K Potassium)
3 % MgO Magnesium oxide, water-soluble (= 1,8 % Mg Magnesium)





# MU Methylen urea

**Methylen urea (MU) is special Slow Release Nitrogen obtained through the condensation of urea molecules with formaldehyde under strictly defined conditions, forming polymer chains of different lengths. The nitrogen release of MU is determined by the design of the polymer lengths and the ration between fast acting nitrogen (Water Soluble Nitrogen) and gradual release nitrogen (Water Insoluble Nitrogen). Shorter chains are more soluble and readily available from microbial action. On the other hand, longer chains are more insoluble and require more time to be digested from microbial action in the soil.**

Unlike other Controlled Release Nitrogen sources, the bioavailability of MU mainly depends on the soil micro-organism activity and mineralization action. MU is a source of organic carbon (life energy) and nitrogen (nutrient) for the soil micro-organisms. Using MU you feed and develop the beneficial microbial population responsible for the natural nitrogen mineralization process (breakdown of polymer chains into simple units). The conditions controlling the root growth and activity of the plants, temperature and humidity, are the same as those that regulate the microbial activity. This means that MU nitrogen is made available when the conditions for root activity and growth are optimal. The release of Nitrogen is in sync with crop needs.

In comparison with coated products, the slow release characteristics of MU products will not be lost if particles „are damaged“ or „are broken“ during shipping and handling. A gradual release of nitrogen is still assured, without nitrogen loss or dumping.

Furthermore, MU protects groundwater from nitrates and keeps nitrogen originated from fertilizers in the soil profile providing uniform and sustained feeding even in hot weather and heavy rains. This is because the Nitrogen release in MU products is not directly dependent only on temperature or hydrolysis, but it requires the microbial activities as well. MU present in some fertilizers from Fenix line is also a source of slowly available water soluble Nitrogen, a meaningful distinction from looking only at water insoluble nitrogen.



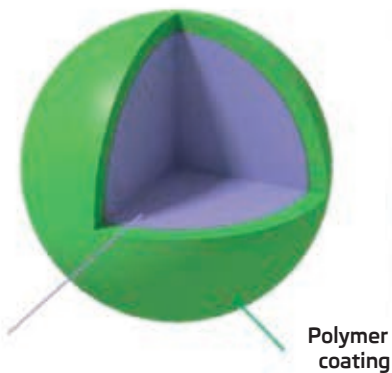




# CRF - Controlled Release Fertilizer by the urea polymer coating

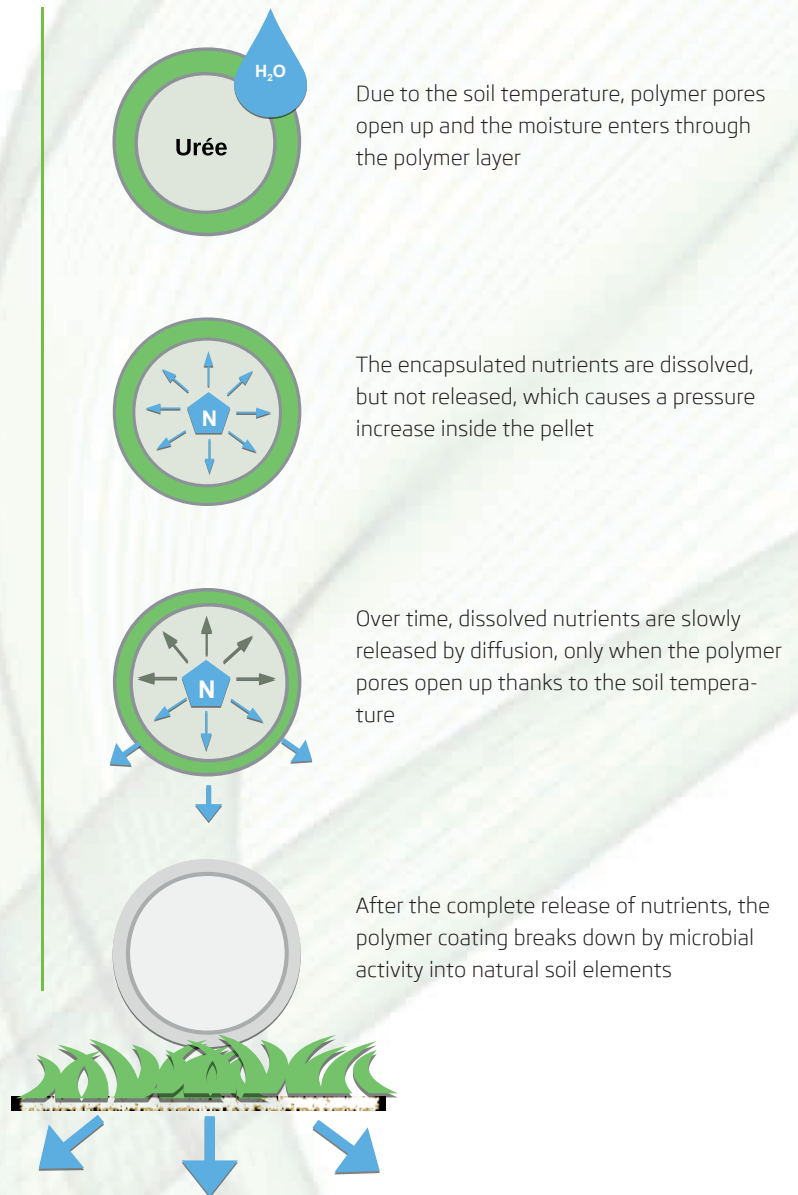
Polymer **coating technology** improves efficiency and nutrient availability. The elements release **depends on the humidity and the temperature**, which makes possible to predict the fertilizer's action duration.

Partially modulated by temperature, the semi-permeable coating allows a daily release of nutrients. At high temperature the fertilizer releases more and at low temperature the fertilizer releases less which matches perfectly with plant needs.



## Benefits of the nitrogen control release technology by Polymer Coating:

- Reduces leaching risks, volatilization and other forms of fertilizer losses
- Allows a controlled and regular release of the elements according to the soil temperature and humidity
- Reduces maintenance costs by using optimal fertilizer



# AGRO CS REFERENCES

## Golf courses



### France

Valescure Golf Course (St. Raphael 83)  
Megève Golf (74)



### Germany

Golfclub Wittelsbacher Rohrenfeld  
-Neuburg  
Golfclub Thalling  
Golfclub Schloß Reichertshausen  
Golfclub Schloß Fahrenbach  
Golfclub Bergkramerhof  
Lausitzer Golf Club  
Golf in Hude  
Wittelsbacher Golfclub Rohrenfeld-Neuburg  
Golf City Cologne Pulheim  
Golfclub Werdenfels/Garmisch



### Austria

Brandlhof Golf Club in Saalfelden  
Golfclub am Attersee  
Golfclub Graz-Liebenau  
Golfclub Innviertel



### Italy

Golf Club Castelfalfi



### Czech Republic

Casa Serena Golf Club  
Greensgate Golf Pilsen  
Golf Brno Kaskáda  
Prosper Golf Resort Čeladná  
Prague City Golf Club  
Kšírovka Golf Club  
Olomouc Golf Club  
about fifty other golf courses  
in the Czech Republic



### Slovakia

Penati Golf Resort Senica  
Golf Club Welten  
Green Resort Hrubá Borša



### Romania

Theodora Golf Club (Alba Iulia)  
Sibiu Golf Club



### Turkmenistan

Ashgabat Golf Club






# AGRO CS REFERENCES


## Football fields/Sports grounds



-  **France**  
Lyon City (69), 9 fields  
City of Roanne (42), 2 fields  
Roche la Molière (42), 2 fields  
Givors (69), 2 fields  
Montanay (69), 1 field  
Mezzieu (69), 3 fields  
St. Foy les Lyon (69), 2 fields

-  **Germany**  
TSV 1860 Munich training ground  
Tennis Club Weissenhof

-  **Austria**  
Mauer-Öhling Football Club

-  **Slovakia**  
Skalica Football Club  
Zvolen Football Club

-  **Czech Republic**  
Training fields of the Czech Football Federation  
AC Sparta Prague Club  
- League One  
Mladá Boleslav Football Club  
- League One  
Club SK Slavia Prague  
- Qualification Europa League 2017/2018  
Jablonec Football Club  
- Qualification Europa League 2017/2018

-  **Hungary**  
Putnok Football Club

-  **Slovenia**  
Brdo National Football Center

-  **Bosnia and Herzegovina**  
Sarajevo Football Club

We have chosen our best references for playing fields. Among others, we are proud to be able to work with playing fields maintenance companies, particularly in Romania, Turkey, Austria, France and Hungary.

In addition, we work on public projects and other playing fields in our home market and abroad.

-  **Spain**  
Tennis Club Santa Ponca (Mallorca)

-  **Turkey**  
Istanbul City





**Order**

Mobile phone: +33 6 37 33 67 28

E-mail: [nika@agrocs.cz](mailto:nika@agrocs.cz)

**Expert advice**

E-mail: [info@fenixprofessional.com](mailto:info@fenixprofessional.com)



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