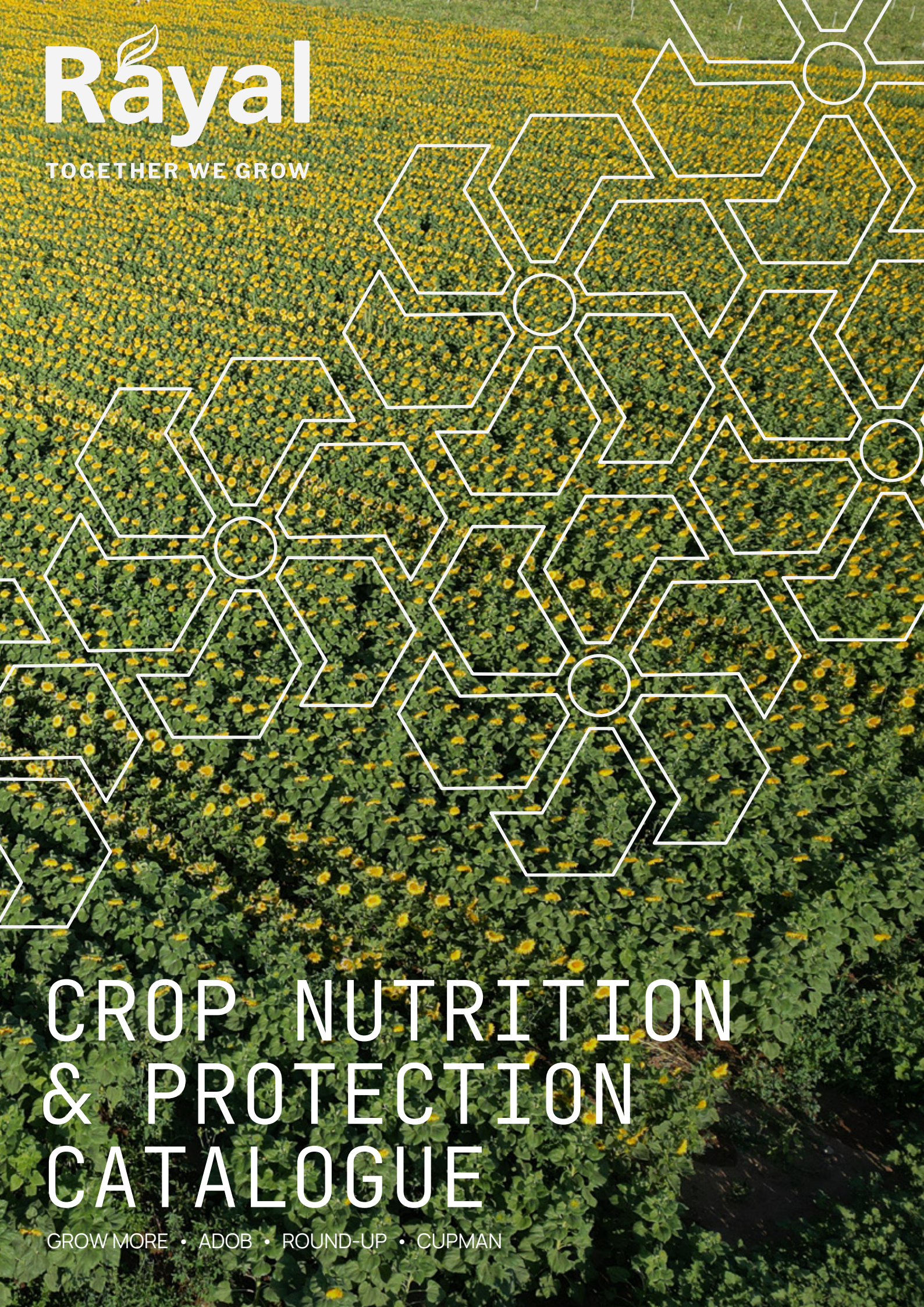

Rayal
TOGETHER WE GROW
CROP NUTRITION
& PROTECTION
CATALOGUE
GROW MORE • ADOB • ROUND-UP • CUPMAN

PRESIDENT'S MESSAGE

MESSAGE FROM OUR PRESIDENT



In 1991, I began my career with Monsanto Company, working in the Caribbean, Greece, Turkey, and Italy over a span of 21 years. These experiences provided me with a deep understanding of the agricultural industry, as well as the challenges and opportunities faced by farmers worldwide.

In the summer of 2010, I established Rayal as a family business, partnering with Monsanto as the exclusive distributor of Roundup branded glyphosate herbicide in Turkey and the Middle East. For over a decade, we built our reputation as a trusted supplier, supporting farmers with reliable crop protection solutions. However, as the agricultural market evolved, so did our focus.

Today, Rayal is a fully independent, family-owned business dedicated to the production and distribution of premium hybrid corn and sunflower seeds, licensed from global leaders in the seed industry. These companies maintain the world's most competitive genetic pools and advanced breeding programs, allowing us to offer our customers seed varieties with superior yield potential, disease resistance, and quality. Alongside our seeds, we supply crop nutrition products from Grow More and Adob, and crop protection products including Round-up and Cupman.

Our corn portfolio includes a diverse range of hybrids, from early to late-maturity varieties suited for both grain and silage production, along with market-leading waxy corn types tailored to local needs. In sunflower, we focus on high oil content hybrids that meet modern processing and export standards. Our sunflower range now covers classic oil types, herbicide tolerant hybrids for flexible weed management, and a confection variety bred for the in-shell and snacking market. We are also currently developing new confectionary varieties.

As a family business, we take pride in building long-term relationships with our customers, delivering personalized support, and offering seed technologies that drive farm productivity and sustainability. At Rayal, we are committed to the success of our customers, our team, and the agricultural communities we serve.

L'EMIR AYOUBI
General Manager

The performance and characteristics described in this catalogue are based on trials and observations under specific growing conditions. Actual results may vary depending on climate, soil quality, cultivation practices, and other local factors. Always read the product label before use and follow its directions. For personalized recommendations and guidance, we encourage you to consult with our technical experts. For further information or assistance, please contact our head office. We are here to support you in achieving the best possible results for your crops.

CROP NUTRITION

CROP NUTRITION &
PROTECTION CATALOGUE



GROW MORE

Water-soluble fertilizers manufactured by Grow More Inc., Gardena, California, and imported by Rayal. The range covers complete NPK nutrition, phosphorus and calcium for flowering and fruit set, chelated potassium, and humic acid.

PRODUCT	ANALYSIS	APPLICATION RATE	PACK SIZES
NPK FOLIAR FERTILIZERS	18-18-18, 20-20-20, 10-52-10, 16-8-26 and 5-5-44, all + TE	Foliar: 100–200 g per 100 L water. Drip or soil: 500–1,000 g per decare	1 kg · 5 lb · 25 lb
RAYALZORB	(0-24-5) + 12% CaO + 10% SO_3 + ME	Foliar: 1 kg per 500 L water	1 kg · 5 kg
POTASSORB	25% K_2O, chelated with citric acid	Foliar: 200–300 cc per 100 L water. Soil: 1–3 L per decare	1 L · 5 L
HUMIC ACID	15% organic matter, 14% humic and fulvic acids, 2.2% K_2O	Soil: 1.5 kg per decare	2.5 gal

Apply throughout the growing period, as required.

BENEFITS

NPK FOLIAR FERTILIZERS — True formulations, not blends. 100% soluble for foliar and drip use, with no residue or staining when applied close to harvest.

RAYALZORB — Excellent effect on flowering and fruit set. High calcium content improves fruit quality and shelf life.

POTASSORB — Potassium fully chelated with citric acid for rapid uptake. Leaves a salt index of 50 in the soil, against 102–294 for KNO_3, KSO_4, KCl and KTS.

HUMIC ACID — Improves soil structure and water-holding capacity, increases microbial activity in the soil and makes nutrients easier for the plant to take up.



ADOB

Chelated micronutrients, nitrogen solutions and iron chelates manufactured by ADOB and supplied by Rayal. The range corrects specific deficiencies quickly, from iron chlorosis on alkaline soils to calcium disorders in fruit.

PRODUCT	ANALYSIS	APPLICATION RATE	PACK SIZES
RAYALFER	13% Fe, fully EDTA-chelated	Foliar: 100–200 g per 100 L water. Soil: 500–1,000 g per decare	1 kg
RAYAL MICROCOMBI	4% Fe, 3.5% Mn, 3% Zn, 0.5% Cu (all EDTA-chelated), 1% B, 0.05% Mo	Foliar: 50–100 g per 100 L water. Soil: 250–500 g per decare	1 kg, 5 kg
AZOSOL 36	27% N, 3.2% MgO, IDHA-chelated Fe, Mn, Cu and Zn, plus B and Mo	Foliar: 100–200 cc per 100 L water. Soil: 250–500 cc per decare	1 L, 10 L
AZOSOL 34	27% N, 0.1% Cu and 0.1% Mn (IDHA-chelated)	Foliar: 100–200 cc per 100 L water. Soil: 100–200 cc per decare	1 L, 10 L
RAYAL BORZINK	7.5% B, 8.1% Zn (EDTA-chelated), 0.05% Mo	Foliar, before flowering and before fruit ripening	1 kg
RAYALMAG	13.5% N, 16.7% CaO, 6% MgO	Drip or foliar. Dissolve on its own, in a separate tank	25 kg
DIFFERO	6% Fe, EDDHA-chelated. Ortho-ortho grades 3.2, 4.0 and 4.8	Root application only. Dose depends on soil type	1.5 kg

cc = cubic centimetre (1 cc = 1 ml). One decare = 1,000 m².

(!) ROOT APPLICATION ONLY: DIFFERO is taken up by the roots. Never apply it to leaves.

BENEFITS

RAYALFER Corrects iron-deficiency chlorosis for healthier, darker green foliage. Fully water-soluble for drip and foliar use.

RAYAL MICROCOMBI Corrects micronutrient deficiencies with high effect at low doses. Chlorine-free, fully soluble and leaves no residue.

AZOSOL 36 Nitrogen with magnesium and chelated micronutrients, promoting chlorophyll formation and strong stem and root development.

AZOSOL 34 Ammoniacal, nitrate and urea nitrogen with chelated copper and manganese for steady growth.

RAYAL BORZINK Supports flowering, fruit development and stronger plant tissue. Applied after harvest on perennials, it improves winter hardiness.

RAYALMAG Helps prevent blossom-end rot and bitter pit, and extends the shelf life of fruit and vegetables.

DIFFERO Corrects iron deficiency in apple, peach, pistachio and citrus, especially on alkaline soils. Granular, non-dusting and dissolves easily.

IDHA CHELATE TECHNOLOGY ADOB's biodegradable IDHA chelate reduces surface tension, so the spray spreads across the whole leaf instead of sitting as droplets. Nutrients are absorbed quickly and effectively. Used in AZOSOL 36 and AZOSOL 34.

CROP PROTECTION

CROP NUTRITION &
PROTECTION CATALOGUE



ROUND-UP

Round-up is a non-selective herbicide, effective on all weed types at differentiated doses.

PRODUCT	FORMULATION	APPLICATION RATE	PACK SIZES
ROUND-UP STAR	Soluble liquid (SL). Glyphosate potassium salt 441 g/L (44.1% w/v), equivalent to 360 g/L glyphosate acid	Annual grasses: 1% solution (1 part product to 99 parts water). Perennial grasses: 2% solution (2 parts product to 98 parts water). 2–4 L/ha for most field, orchard and vineyard weeds, as a single spray. Orchards (citrus, apricot, olive, apple, grape, peach and others): spray before bud break, 28 days before harvest. Legumes, aubergine and similar crops: spray before crop emergence, 14 days before harvest. Vegetables and ornamentals, pre-planting: 2–4 L/ha in 60–100 L water/ha, 6 weeks before sowing.	1 L 5 L 15 L
ROUND-UP RECORD	Water-soluble granules (SG). Glyphosate 720 g/kg (as ammonium salt, 792 g/kg)	1 kg/ha on annual weeds. 2 kg/ha on perennial weeds	1 kg 5 kg

BENEFITS

ROUND-UP STAR

A systemic, non-selective herbicide, absorbed through the leaves and inactivated on contact with soil, so it will not harm a crop planted afterwards. Controls most annual and perennial weeds, including couch grass and bramble, in citrus, vine and fruit orchards, and in field crops.

ROUND-UP RECORD

A non-selective herbicide that controls a wide range of annual and perennial weeds. It is the most effective herbicide on hard-to-control weeds.

(!) **Field re-entry interval: 24 hours after spraying.** Keep the pesticide in its original container, out of the reach of children.



CUPMAN

A protective and curative fungicide for the control of late blight (Phytophthora infestans) and early blight (Alternaria solani) on potatoes, and on other crops and fruit trees.

PRODUCT	ACTIVE INGREDIENT	TARGET CROPS AND PESTS	RATE	PACK SIZES
CUPMAN	Cymoxanil 6% + copper hydroxide 46.1% (equivalent to 30% copper) WDG	Potatoes, other crops and fruit trees. Phytophthora spp. (incl. P. infestans) and Alternaria solani	2 kg/ha	1 kg

BENEFITS

DUAL ACTION

Cymoxanil works systemically inside the plant while copper hydroxide protects the leaf surface, giving both preventive and curative control of late blight and early blight.

Manufactured by Zenith Crop Sciences, Asenovgradsko Shose, 4009 Plovdiv, Bulgaria. Distributed by Rayal. **Keep the product in its original container, out of the reach of children.**





Rayal

TOGETHER WE GROW

HEAD OFFICE
Maslak Mahallesi, Maslak Meydan Sokak, No: 3, Veko Giz Plaza, Kat: 3, Sarıyer (34398), İstanbul, Türkiye

HEAD OFFICE — LEBANON
Aaba Village, Al Koura, North Lebanon
Rayal S.A.R.L.
T: 009 616 933 129

CENTRAL WAREHOUSE
Sırabademler Mahallesi, Bayırlar Paşaçayırı Mevkii, No: 55, Emek İnşaat Sit. No: 55/1, Karacabey (16700), Bursa, Türkiye
T: +90 224 676 51 55

www.rayal.com.tr