



## “Custom-made” apples in Poland



There are two things I will not forget from my trip to Poland with our new colleague and Sales Manager, Mariusz Hoszowski: That we had a hard time locating our hotel in Warsaw (two failed attempts before we made it), and the quality of the high production apple orchards in Mazowieckie, the principal producing area of this fruit in Europe.

The Apple orchards we visited had well developed root systems in suitable soil, and had good fertilization practices. However, our soil analysis revealed some margin to improve the potassium (K) status and the generative/vegetative balance that is influenced by the K/N relation. A fertilizer with a predominance of nitrate as a rapidly absorbable and controllable source of nitrogen (75% nitrate/ 25% ammonium) optimized the absorption of K. In addition, we maintained a healthy state of the trees' reserves through the divided application of granular complexes in up to 4 applications, including post-harvest.

The first year, the improvement in the state of K generated progress in all the important quality parameters: significantly better color, more sugar, increased tissue firmness. By applying a post-harvest



treatment we achieved a second year with more fruit (less abortion) and medium-sized apples of a high economic value: 70-80 mm apples are worth 60% over 80-90 mm apples in the European consumer market!

In the second season (2019), frost affected the harvest reducing it to less than half. When the number of fruits per tree is low, the apples grow more than expected. It is difficult to produce fruits of the relevant economical size and even impossible, when, for a season of average yield, the fertilizers have been applied at the beginning.

What to do?

The divided application (with an important contribution of nutrients in the fruit's early development state), allowed a second intervention, and, at the third application, to reduce the contribution of nutrients.

Savings of fertilizers were achieved and fruit with the proper size was produced. In high technology orchards, the Qrop® products with specific nutrients combined with a divided application strategy, prevent and correct many nutritional problems caused by unexpected climate events. But, please note, this application will only be successful if sources of rapidly absorbable nutrients are used, such as the potassium nitrate content in our product Qrop® Complex Top K, or the Qrop® Mix formulae based on potassium nitrate that allow a timely intervention in the balance of nutrients like NPK, CA/K or others.

The trial was carried out in ??czeszyce, province of Mazowieckie in Poland, GPS : 51,776763 N  
20,783907 E