



## ***HORA Drink***

### **1. Nutritional features**

Hora drink is a vitamin-enriched carbonated soft drink, which can be used as a substitute for conventional carbonated soft drinks such as orange soda, or even as a sports drink. It is characterized by a high content of orange juice (20%), among the highest found in drinks made of concentrated orange juice. Its sugar content is lower than most sugary soft drinks of this type: 9.2g of sugar per 100 ml (10.4g of carbohydrates per 100 ml) as opposed to sugar levels which are normally higher than 11g per 100 ml, which are found in the main brands' orange-flavoured drinks. Furthermore, the natural sweetener used is mixed-flower honey, and this choice is no doubt preferable from a nutritional point of view over sucrose. Honey has a high content of micro-nutrients, antioxidants and, in particular, polyphenols with protective activities for human health [1]. The tests we carried out on the carbohydrate component of Hora honey show a presence of fructose ranging at roughly 60% and glucose at about 40%. This dominant presence of fructose reduces the drink's glycaemic index which, also thanks to the lower sugar content of drinks of the same type, makes it a drink with a reduced glycaemic impact. This characteristic, associated with the presence of B vitamins, vitamin E and zinc, make Hora an ideal "sports drink" while practising aerobic sports.

The choice of using honey instead of ordinary sucrose makes this drink certainly more beneficial, as honey is the healthiest sweetener among sugars found in nature. The intake of honey, at the right daily doses (20-30 g/day) and within a balanced diet, contributes to maintaining metabolic health [2]. The polyphenols in honey, which we have quantified in the Hora drink as being (2.4 mg per 100 ml of total polyphenols expressed as gallic acid), are believed to be the main reason for honey's ability to counteract metabolic and glycaemic imbalances [3] while helping the liver's metabolism [4].

### **2. Vitamin supplementation**

Hora drink's integrated B vitamins (B1, B3, B6, B12), Biotin and antioxidant vitamins (C and E) represents an added value for healthy consumers and, even more so, for athletes who have an increased energy and vitamin requirements. These supplements amount to 15%/100 ml compared to the "Nutrient Reference Values" (NRV) and as a result, a can of Hora provides a total of 37% of the reference intake value (NRV), which is a more-than-appropriate amount in a drink that can be consumed as a "sports drink". Supplemented with zinc, which is an essential micro-nutrient, it is certainly interesting from a nutritional point of view because deficiencies of this mineral are not uncommon in adults and athletes.



### 3. Conclusions

Hora orange drink has nutritional features superior to those of most carbonated and sweetened orange-flavoured drinks on the market. The choice of honey as a natural sweetener makes it healthier than all the orange drinks sweetened with sucrose or with artificial calorie-free sweeteners.

Hora thus represents an excellent healthy alternative to classic carbonated drinks and can also be consumed as a sports drink during and after carrying out a predominantly aerobic or mixed physical activity (aerobic-anaerobic).

### 4. Essential bibliography

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- 3) Zhang S, Kumari S, Gu Y, et al. Honey consumption is inversely associated with pre-diabetes among Chinese adults: results from the Tianjin Chronic Low-Grade Systemic Inflammation and Health (TCLSIH) Cohort Study [published online ahead of print, 2020 Mar 3]. *Br J Nutr*, 2020; 1-8. doi:10.1017/S0007114520000835.
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