

## **Down Scaling Olive Oil Extraction for Process Optimization**

Guido Bonghi, Vitale Stanzione, CNR ISAFoM UOS PG

Perugia, Italy

Several issues of olive oil quality depend on fruit variability. In breeding programs or in fruit physiopathology the sample scale often does not exceed 20g. We calibrated a technique using conventional glassware and swinging rotor centrifuge that allows a reliable extraction of oil in this range. Part of the variability produced by malaxation in pilot plants in the range from 50 to 2 kg is reduced. Extraction efficiency, acidity, and total polyphenols are assayed in all procedures and their correlation is reported. We found a better control of process variables in the 20g scale.