

5 easy steps estimating Shelf Life

The Olive Oil Commission of California has required its members to provide a Best-Before Date (BBD) on olive oil produced in California. While the commission has provided several methods for estimating the BBD, the method below is one of the easiest. An example of how to use the method below is on the next page.

Step 1: Test oil

Test for FFA, PPP, DAGs and Induction Time (at 110°C)

Step 2: Calculate Value A

$$\frac{DAGs-35}{FFA\ Factor} = \text{Value A}$$

FFA Factor = 1.7 (if FFA < 0.4%); 2.1 (if FFA > 0.4% and < 0.6%) or 2.5 (if FFA > 0.6%)

Step 3: Calculate Value B

$$\frac{17-PPP}{0.6} = \text{Value B}$$

Step 4: Identify Value C

Induction Time (hours) = Value C

Step 5: Identify lowest number

Compare Values A, B and C: lowest number is the estimated months of shelf life

Example

Step 1: Test oil

Sample results:

- FFA = 0.2
- DAGs = 90
- PPP = 2
- Induction time = 30 (hours)

Step 2: Calculate Value A

$$\frac{DAGs-35}{FFA \text{ Factor}} \text{ thus, for this sample } \frac{90-35}{1.7} = \mathbf{32}$$

(DAGs is 90 for this sample and the FFA Factor is 1.7 because FFA for sample is < 0.4%)

Step 3: Calculate Value B

$$\frac{17-PPP}{0.6} \text{ thus, for this sample } \frac{17-2}{0.6} = \mathbf{25}$$

(PPP = 2 for this sample)

Step 4: Identify Value C

Induction Time (hours) = **30**

Step 5: Identify lowest number

For this sample Value B has the lowest number at **25**

Therefore, 25 months is estimated shelf life for this sample