

APPENDIX IV

**PROPOSED DRAFT AMENDMENT/REVISION TO THE STANDARD FOR NAMED VEGETABLE OILS
(CXS 210-1999): INCLUSION OF AVOCADO OIL**

(Adoption at Step 5)

2. DESCRIPTION**2.1 Product definitions**

Avocado oil may be derived from either the mesocarp of avocado fruit (*Persea americana*) or obtained by processing the whole avocado fruit.

3. ESSENTIAL COMPOSITION AND QUALITY FACTORS**3.1 GLC ranges of fatty acid composition (expressed as percentages)**

Samples falling within the appropriate ranges specified in Table 1 are in compliance with this Standard. Supplementary criteria, for example national geographical and/or climatic variations, may be considered, as necessary, to confirm that a sample is in compliance with the Standard.

Table 1: Fatty acid composition of avocado oil as determined by gas liquid chromatography from authentic samples (expressed as percentage of total fatty acids)

| Fatty acid | Avocado Oil |
|------------|-------------|
| C6:0 | - |
| C8:0 | - |
| C10:0 | - |
| C12:0 | - |
| C14:0 | ND - 0.3 |
| C16:0 | 11.0 - 26.0 |
| C16:1 | 4.0 – 17.1 |
| C17:0 | ND – 0.3 |
| 17:1 | ND - 0.1 |
| C18:0 | 0.1 - 1.3 |
| C18:1 | 42.0 - 75.0 |
| C18:2 | 7.8 - 19.0 |
| C18:3 | 0.5 - 2.1 |
| C20:0 | ND - 0.7 |
| C20:1 | ND - 0.3 |
| C20:2 | - |
| C22:0 | ND - 0.5 |
| C22:1 | - |
| C22:2 | - |
| C24:0 | ND - 0.2 |
| C24:1 | ND – 0.2 |

OTHER QUALITY AND COMPOSITION FACTORS

3. CHEMICAL AND PHYSICAL CHARACTERISTICS

Chemical and Physical Characteristics are given in Table 2.

Table 2: Chemical and physical characteristics of crude avocado oil

| Parameter | Avocado Oil |
|--------------------------------------|---------------|
| Relative density (x°C/water at 20°C) | 0.910 – 0.920 |
| Refractive Index (ND 40°C) | 1.458 – 1.470 |
| Saponification Value (mg KOH/g oil) | 170 – 202 |
| Iodine Value | 78 – 95 |
| Unsaponifiable matter (g/Kg) | 19.0 max |

4. IDENTITY CHARACTERISTICS

Levels of desmethylsterols in vegetable oils as a percentage of total sterols are given in Table 3.

Table 3. Levels of desmethylsterols in crude avocado oil from authentic samples as a percentage of total sterols.

| | Avocado Oil |
|-----------------------|----------------------|
| Cholesterol | ND - 0.5 |
| Brassicasterol | ND - 0.5 |
| Campesterol | 4.0 - 8.3 |
| Stigmasterol | 0.3 - 2.0 |
| Beta-sitosterol | [71.0] [79.0] - 93.4 |
| Delta-5-avenasterol | 2.0 - 8.0 |
| Delta-7-stigmastenol | ND – [1.0] [3.5] |
| Delta-7-avenasterol | ND – 1.5 |
| [Others | [ND] [0.0] - 2.0] |
| Total sterols (mg/kg) | [3000] [3500] - 6500 |

[Note: Avocado oil also contains [0.6] [1.0] - 2.0 % clerosterol]

[Table 4: Levels of tocopherols and tocotrienols in crude vegetable oils from authentic samples (mg/kg) (see Appendix of the Standard)]

| | Avocado oil |
|-------------------|-------------|
| [Alpha-tocopherol | [50 – 450] |
| Beta-tocopherol | [ND] |
| Gamma-tocopherol | [10 – 20] |
| Delta-tocopherol | [ND – 10] |
| Alpha-tocotrienol | [ND] |
| Gamma-tocotrienol | [ND] |
| Delta-tocotrienol | [ND] |
| Total (mg/kg) | [50 – 450] |