APPENDIX VI

PROPOSED AMENDMENT/REVISION TO THE *STANDARD FOR NAMED VEGETABLE OILS* (CXS 210-1999): INCLUSION OF CAMELLIA SEED OIL
(For Adoption at Step 5/8)

2. DESCRIPTION

2.1 Product definition

Camellia seed oil (youcha oil) is derived from the seeds of cultivated *Camellia* species (*C.oleifera*, *C.chekiangoleosa*, *C. japonica* and *C.vietnamensis*).

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 camellia seed oil as determined by gas liquid chromatography from authentic samples (expressed as percentage of total fatty acids)

Fatty acid	Camellia seed oil
C6:0	ND
C8:0	ND
C10:0	ND
C12:0	ND
C14:0	ND-0.8
C16:0	3.9-14.5
C16:1	ND-0.2
C17:0	ND-0.1
C17:1	ND-0.1
C18:0	0.3-4.8
C18:1	68.0-87.0
C18:2	3.8-14.0
C18:3	ND-1.4
C20:0	ND-0.5
C20:1	ND-0.7
C20:2	ND
C22:0	ND-0.1
C22:1	ND-0.5
C22:2	ND
C24:0	ND
C24:1	ND-0.5

ND - Non-detectable, defined as ≤ 0.05%

APPENDIX TO CXS 210-1999 - OTHER QUALITY AND COMPOSITION FACTORS

3. CHEMICAL AND PHYSICAL CHARACTERISTICS

Chemical and Physical Characteristics are given in Table 2.

Samples falling within the appropriate ranges specified in Table 2 are in compliance with this Standard.

Table 2: Chemical and physical characteristics of crude camellia seed oil

	Camellia seed oil
Relative density (x℃/water at 20℃)	0.912-0.922 (x=20℃)
Refractive index (ND 40℃)	1.460-1.464
Saponification value (mg KOH/g oil)	187-199
Iodine value	83-89
Unsaponifiable matter (g/kg)	≤15

4. IDENTITY CHARACTERISTICS

Table 3: Levels of desmethylsterols in crude camellia seed oil from authentic samples as a percentage of total sterols

	Camellia seed oil
Cholesterol	ND
Brassicasterol	ND
Campesterol	0.5-2.1
Stigmasterol	0.3-4.6
Beta-sitosterol	16.0-60.0
Delta-5-avenasterol	0.4-4.3
Delta-7-stigmastenol	37.2-69.0
Delta-7-avenasterol	0.9-8.5
Others	0.5-5.1
Total sterols(mg/kg)	100-4000

ND - Non-detectable, defined as ≤ 0.05%

Table 4: Levels of tocopherols and tocotrienols in crude camellia seed oil from authentic samples (mg/kg)

	Camellia seed oil
Alpha-tocopherol	30-950
Beta-tocopherol	ND-11
Gamma-tocopherol	2-56
Delta-tocopherol	ND-28
Alpha-tocotrienol	13-35
Gamma-tocotrienol	5-39
Delta-tocotrienol	ND
Total (mg/kg)	100-1000

ND - Non-detectable.