

Seeds of *Trichosanthes kirilowii*, an Energy-Rich Diet

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Trichosanthes kirilowii Seeds, Triglycerides, Glycolipids, Phospholipids

The kernels of *Trichosanthes kirilowii* seeds contain a green oil which makes up for 62% of their dry matter. This oil consists up to 95% of triglycerides, 2% of glycolipids, 1.3% of phospholipids and 1.8% of chlorophylls. As fatty acid components the triglycerides, glycolipids and phospholipids contain the unsaturated fatty acids linoleic and oleic acid and the saturated palmitic acid. In the triglycerides 19% of the C_{18:3} acid occur with the configuration Δ^9 *cis*, Δ^{11} *trans*, Δ^{13} *cis*. This acid is called trichosanic acid and is absent in glycolipids and phospholipids which contain instead another C_{18:3} fatty acid, which has conjugated double bounds and occurs with an amount of 21% and 3%, respectively. Typically, these oil seeds contain in addition up to 30% of their dry matter proteins and up to 2.5% mono- and oligosaccharides. The monosaccharides consist of rhamnose, galactose and glucose and the oligosaccharides represent a mixture of tri- and tetrasaccharides.