Flax seeds have been great interest in the recognition that some of their components offer potential health benefits and prevention of some diseases. Flax minerals are quantitatively important and among them are iron (Fe), zinc (Zn) and calcium (Ca), with contents of 50 mg/kg, 40 mg/kg and 2360 mg/kg, respectively.

The aim of this study was to determine the content of Fe, Zn and Ca in seven cultivars: Baikal, Prointa Lucero, Prointa Ceibal, Panambí INTA, Curundú INTA, Carapé INTA and Tape INTA, planted at INTA EEA Paraná in two planting dates: June 11 (FS1) and July 30 (FS2). The samples obtained were evaluated regarding the content of Fe, Zn and Ca by atomic absorption spectroscopy.

Fe content was significantly affected by the effect of cultivar and planting dates, while only the planting date statistically affects Zn and Ca content.

The cultivar P. Ceibal presented the highest content of Fe (49.2 mg/kg), which did not differ significantly from those found for Carapé INTA, Baikal, Tape INTA, P. Lucero cultivars. However this value was higher than those of cultivars Curundú INTA and Panambí INTA, the latter showed the lowest content of Fe (42.1 mg/kg).

Regarding planting dates, Fe content was higher in FS1 than in FS2 (48.3 vs. 43.3 mg/kg), while the contents of Zn and Ca were higher in FS2 (28.3 vs. 34.7 mg/kg and 2321.5 vs. 2489.3 mg/kg, respectively).

These results demonstrated that the cultivars can affect the content of Fe and planting date can influence the content of Zn and Ca.