

LITHUANIAN FIBRE FLAX VARIETIES FOR TEXTILE PURPOSES

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High fibre quality is one of the key requirements in fibre flax breeding for textile purposes. The most important criteria are fibre fineness, tenacity and flexibility. The aim of the present study was to evaluate fibre quality of Lithuanian fibre flax varieties and new breeding lines, and to compare fibre quality parameters with those of the standard and other fibre flax varieties.

In 2002 field experiments were conducted at the Upyte Research Station of LIA with eighteen fibre flax varieties and breeding lines: 8 of Lithuanian (LT), 6 of the Dutch (NL), 3 of French (F) and 1 of Belarus (BY) origin. The fibre obtained from these experiments was tested for the main quality parameters. The data from 2002, which was characterised by the shortage of moisture during the growing season, suggest that the tested varieties perform differently.

Flexible fibre (50.9-55.9 mm) was obtained from the varieties 'Baltučiai' (LT), 'E-68' (BY) and Lithuanian breeding lines 1698-136a, 1963-3 and 2017-3 (LT). Lower fibre flexibility (34.6-35.2 mm) was identified in the varieties 'Elize' (NL), 'Hermes' (F) and breeding line No.1864-24 (LT), however, fibre tenacity in those varieties was the highest – 216-241 N. Good fibre tenacity (235 N) was found in breeding line No. 01057-12 (LT), while the lowest tenacity, ranging from 213 to 178 N, was found in the varieties 'Vega 2' (LT), 'Kastyčiai' (LT), 'Marylin' (NL), 'Viola' (NL), 'Baltučiai' (LT), 'Argos' (F), 'Evelin' (NL).

Fibre fineness is an important character of fibre flax varieties. Only from fine, strong and flexible fibre fine thread and fabric can be produced. Fine fibre was obtained from the varieties 'Belinka' (NL), 'Baltučiai' (LT), 'Vega 2' (LT), 'Argos' (F), 'E-68' (BY), 'Kastyčiai' (LT), 'Ariane (F)' and from breeding lines No. 1963-3 and No.2017-3 (LT).

According to the calculated characteristic – "fibre quality" - the variety 'Baltučiai' (LT)(14.8 km) was the best. The varieties 'Vega 2' (LT), 'Argos' (F), 'Kastyčiai' (LT), 'E-68' (BY) and breeding lines No.1963-3, No.1698-13a, No.2017-3 and No.01057-12 (LT) were almost the same in this respect.