

VARIETIES OF ALTERNATIVE CROPS AS A SOURCE OF BIOETHANOL



Botanichnyi variety



Yevhenia variety

Areas of Application

Alternative crops are to be used in agricultural production, energy and food industry for producing bioethanol and solid biofuels, fertilizers, and well-balanced fodders (as by-products)

Specification

Annual crops with a high content of carbohydrates (sweet sorghum, finger millet); the Botanichnyi, Enerhodar, Yevhenia, and Yaroslav-8 varieties bred at NBG have been recorded in the State Register of Plant Varieties of Ukraine.

Yield of raw material, t/ha	≤100
Bioethanol output, t/ha	3–7
Seeds yield, t/ha	4–8
Sugar content, %	>20
Energy production, Gcal/ha	80–110
Solid biofuel output from by-product material, t/ha	>10

IPR Protection

IPR2, IPR3

Advantages

As compared with conventional crops for bioethanol production, the new varieties require up to 1.5 times less acreage. The new varieties of alternative crops have a higher sugar content as compared with the feed crop varieties (by 12–13%); their seeds can be gathered separately and used as fodder. The production profitability reaches 80–120%

Stage of Development.

Suggestions for Commercialization

IRL3, TRL3

The commercial use of varieties is governed by license agreements. Seeds and recommendations on plant cultivation and use are provided

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