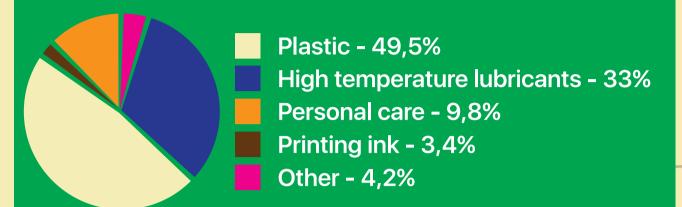
## **Specifics and cultivation of High Erucic Acid Rapeseed (HEAR)**

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## The market share HEAR rapeseed in the area of using

In the global rapeseed production the main attention is paid to the expansion of sown areas of technical rapeseed, which has a high content of erucic acid (HEAR). Aries of use of HEAR oil are quite diversemainly it is the production of plastic and high-temperature lubricants.



In addition to the strategic directions of the use of oil of these varieties, it is converted to amides, which in turn are used in various industrial sectors.









The production of "green amides" is identical to the production of "organic products", which in recent years has been increasing demand, especially in Asian countries.

## HEAR production in the world

The share of rapeseed production in the world with a high content of erucic acid is quite negligible in compare with to non-erucic acid varieties and is within 0.26%. However, in recent years, there has been a tendency in the world market to increase the use of polymeric additives from "green raw materials", which prompts to increase the sown area under HEAR. Experts estimate that the demand for HEAR and its products on the market grows by an average of 3.4% per year.



In the world, the production of hybrids with a high content of erucic acid (HEAR) is higher than 55-60% and a low content of glucosinolates is high, and the number of varieties and hybrids produced with such indicators in the world market is unlike. They mostly have GMO (Canada, USA) and are derived by traditional breeding methods (Asia and EU).



Nowadays Kreves Crops LLC works towards the creation of the new highly-effect, environmentally-adapted

varieties and hybrids of Winter and Spring rapeseed, with a high content of erucic acid (HEAR) of more than 55%.













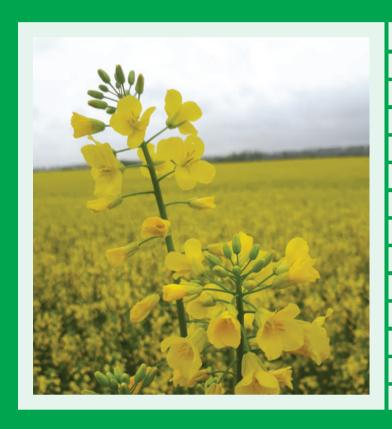




Nowadays in Ukraine unique in fatty acid composition and content of glucosinolates, is a variety of Winter rapeseed "XX", which is flexible to the conditions of cultivation, contains a high

content of erucic acid in the oil and a small amount of glucosinolates. The technology of its cultivation is generally accepted as for the type of canola.

## **Main characteristics of the variety:**



Plant height	150-180 cm
Vegetation period	310-315 days
Winter resistance	high stability
Autumn development	moderate stability
Spring development	Rapid growth
Stability to sink	medium stable
Resistance to aspiration	high
Reaction to sowing times	high
Potential yield	Up to 8.0 tons
Weight 1000 seeds	4,4-4,7 g
Oil content	43-45,0%
Erucic acid	Max. 53,0%
Glucosinolates	16-18 μMol/g
Spatial isolation	Up to 4 km

Observance of all elements of the technology of the cultivation of HEAR,

taking into account favorable weather conditions, provides crop yield of 3.20 t/ha and above. With the intensive growing



technology, the average cost per hectare is US\$810, at a cost of 1 ton of the product, \$ 253.

At the selling price for rapeseed, US\$460/t, the profit per hectare will be US\$662 + a premium

for the production of 1 ton of rapeseed.

The high quality of HEAR and oil it is

confirmed by certificates of analysis of SGS laboratory.

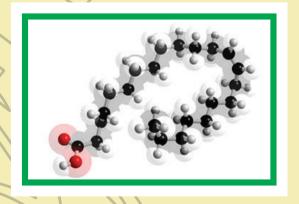
Kreves Crops LLC is an official distributor of HEAR sowing material in Ukraine as well as being the main consumer of rapeseed oil obtained from HEAR.





Kreves Crops LLC is closely cooperating with its partners as producers and consumers of HEAR for various fields of

production in Japan, China, Germany, South Korea, Kazakhstan, Kyrgyzstan and India.









COMMONLY USED CULTIVATION TECHNOLOGY similar to canola type 00



GETTING A GUARANTEED PROFIT
getting a profit and a
corresponding premium for the
content of erucic acid in the seed

STABILITY OF CROP FORMATION formation of the corresponding level of productivity due to good adaptation





RESISTANCE TO ABIOTIC FACTORS

Kreves Crops LLC is always ready for cooperation, we hope that you will become our partners



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