THE PERSPECTIVES OF CULTIVATING OF *ECHINACEA PALLIDA* (NUTT.) NUTT., AS A NEW MEDICINAL HERB UNDER CONDITIONS OF THE SOUTH OF UKRAINE

Donets. D.[1], Derevynska T.[2]

[1]*Mechnikov Odesa National University, Odesa, Ukraine*

[2]*0desa State Medical University, Odesa, Ukraine*

E-mail: d_donets@ukr.net

Among the 9 species of the North-American genus *Echinacea* Moench. (Asteraceae) only *Echinacea purpurea* (L.) Moench is introduced to Ukraine and acknowledged as officinal, while in the Western Europe another two species *(E. pallida* (Nutt.) Nutt. and *E. angustifolia* DC) are widely used and cultivated. Our attention was attracted by the xeromorphic *Echinacea pallida* (Nutt.) Nutt., which provides a possibility of usage as a new cultivated medicinal herb in our droughty region.

At this stage the goal of the research was to evaluate the possibility of the resource basis of this plant in the southern region of Ukraine. To achieve this next types of research were accomplished: definition of the germination percentage of achenes of *E. pallida* of the first local reproduction under lab and field conditions and study of the ontogenesis of *E. pallida* under conditions of the Botanical garden of ONU.

During the study of the germination percentage occurred that 8 months after harvesting it was 37 ± 6,4%. We must note that this is a considerably high germination percentage for this species, what can witness for the great perspectives of the further introduction of this species into our region.

The ontogenesis studies were held in the Botanical garden of ONU. Low germination percentage under the field conditions (about 7%) was observed together with mighty vegetative development during the first year of vegetation and a considerable drought-resistance. 80% of plants during the second year of vegetation have bloomed and yielded seeds able to germinate. The two-years old plants from the botanical garden have had some important morphological characteristics: fleshy vertically-thickened rhizome up to 2 cm in diameter and considerably thick branched roots with maximal length up to 30 cm. Such structure allows the plant to use the soil moisture rationally, what is quite important considering the droughty conditions of the region, and, unlike *E. purpurea,* excludes the necessity of washing this roots before drying.

Thus we must conclude that *E. pallida* possesses a number of important morphological and physiological qualities which allow to acknowledge bright perspectives of cultivating *Echinacea pallida* in the southern region of Ukraine.

ПЕРСПЕКТИВИ КУЛЬТИВУВАННЯ ЕХІНАЦЕЇ БЛІДОЇ ЯК НОВОЇ ЛІКАРСЬКОЇ РОСЛИНИ В УМОВАХ ПІВДНЯ УКРАЇНИ

Донець Д.М., Деревинська Т.І.

Були вивчені лабораторна схожість сім'янок ехінацеї блідої першої місцевої репродукції та онтогенез ехінацеї блідої в умовах Півдня України. Встановили, що такі сім'янки ехінацеї блідої мають високу для даного виду лабораторну схожість. Відмічено, що ехінацея бліда в умовах Півдня України показує добру пристосованість до посушливих умов і можуть ефективно використовуватись як джерело лікарської рослинної сировини.