



## Практичне заняття № 7

**Exercise 1. Study the following example of a Poster. Read and translate it into Ukrainian.**

### HONESTY SPECIES AND THEIR INTERSPECIFIC HYBRIDS

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Honesty – plant with a good ornamental look and rare fatty acid composition of oil. Honesty belongs to *Brassicaceae* family.

Initial species

*Lunaria annua* L.

Type of development: annual

Leaf color: light-green

Leaf tip shape: narrow triangular

Leaf base shape: small outgrowth

*Lunaria rediviva* L

Type of development: perennial

Leaf color: dark-green

Leaf tip shape: round

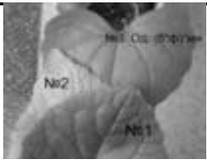
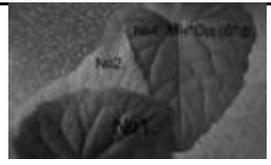
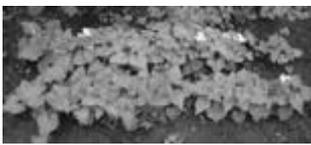
Leaf base shape: very big outgrowth



### Cross-combinations

♀ <i>L. rediviva</i> (1)	♂ <i>L. annua</i> (2)
♀ <i>L. annua</i> (2)	♂ <i>L. rediviva</i> (1)

### Interspecific hybrids

Comparing leaf color of interspecific hybrids with parental form	 <i>L. annua</i> × <i>L. rediviva</i>	 <i>L. rediviva</i> × <i>L. annua</i>
F2 generation of interspecific hybrids (summer of the 1 year)		

Some morphological traits



## ПРОФЕСІЙНО-ОРІЄНТОВАНИЙ ПРАКТИКУМ ІНОЗЕМНОЮ МОВОЮ

<i>Genotype</i>	<i>L. annua</i>	<i>L. rediviva</i>	<i>L. annua</i> × <i>L. rediviva</i>	<i>L. rediviva</i> × <i>L. annua</i>
Trait				
Leaf color	light-green 	dark-green 	green 	green 

### Exercise 2. Study the following example of Abstracts for conference participation. Read and translate it into Ukrainian.

Honesty species and their interspecific hybrids

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Nowadays, it's very important to broaden an assortment of species which can be used for human's needs. Some plants are perspective in multiuse. One of those crops is honesty (*Lunaria* genus) from *Brassicaceae* family. This plant has a good ornamental look and rare fatty acid composition of oil.

Two species of honesty are known. They have differences, firstly, in a plant development type. *Lunaria annua* L. is an annual species while *Lunaria rediviva* L. is characterized by perennial type of development. This two honesty species have different terms of flowering and doesn't produce interspecific hybrids under the natural condition. *L. rediviva* is blooming in the middle and late spring when *L. annua* just starts to germinate.

It is known that the number of chromosomes is equal for both species ( $2n=28$ ) (Dvorak, Dadakova, 1984, Krahulkova, 1991). This information was a ground for development of interspecific hybrids between wild species in artificial conditions. At Zaporizhzhya National University the fertile interspecific hybrids between *L. annua* and *L. rediviva* in reciprocal combinations were produced and the investigations of these hybrids were started. The aim was to establish the inheritance of plant development type in the first and second hybrid's generations.

*Lunaria annua* is an annual plant with green or light-green plant color. Leaves have two formations – with and without stalk. The leaves which are situated on flowering stem don't have stalks. The shape of the leaves is looks like a heart with small outgrowths. Flowers have lilac, pink-lilac or white color.



## ПРОФЕСІЙНО-ОРІЄНТОВАНИЙ ПРАКТИКУМ ІНОЗЕМНОЮ МОВОЮ

*Lunaria rediviva* is a perennial plant with a dark-green or green plant color. All leaves have stalks. The shape of leaves looks like a heart, but the leaf blade has a bigger outgrowths than an annual species. The flower color is lilac, pink-lilac or pink. White flower color was not described in the literature for this species.

To develop the interspecific hybrids the parental species were grown in controlled indoor conditions. Hybrid's seeds were sown and the F1 generation was analyzed as well as initial species under the same conditions. All of hybrids were fertile and gave the next generation of seeds. The F2 generation was sown both indoor and field conditions. Some morphological traits and type of plant development were analyzed. The data were processed.

The dominance of perennial type over annual type was established, because all F1 hybrids in both crossing combinations had perennial type. In second generation the ratio about 3 perennial type: 1 annual type in *L. rediviva* × *L. annua* cross combination was observed. However, in reciprocal combination three groups of plants (perennial, annual and plants with intermediate type of development) were found. The plants with intermediate type of development started their flowering at the first year of life, but much later than annual species. After flowering they didn't stop their growth and after pod set saved a rosette of leaves. Next spring they secondly flowered and set the pods and only after that they died.

### References

Dvorak F., Dadakova B., 1984. Chromosome Counts and Chromosome Morphology of Some Selected Species. *Folia Geobotanica et Phytotaxonomica*. 19: 41-70.

**Exercise 3. Write your example of a Conference Abstract.**

**Exercise 4. Prepare your poster for the conference to present your scientific work.**

**Exercise 5. Make up a dialogue between two participants of the conference. One of them demonstrates their poster presentation.**