## ВІДКРИВАЄМО НОВЕ СТОРІЧЧЯ: ЗДОБУТКИ ТА ПЕРСПЕКТИВИ

- with enteritis, enterocolitis: cumin;
- anti-inflammatory: anise (fruit), parsley, cumin;
- diuretic: black elderberry (flowers), oregano, extragon, dandelion, juniper, celery (seeds and roots);
- -antiallergic: wild rosemary, duck peony, calendula, nettle, cinquefoil, chamomile, oak bark, poplar buds, yarrow, blueberries (fruits);
- -antifungal: common yarrow, common wormwood, warty budra, medicinal marigolds, meadow clover, dried cress, spreading quinoa, burdock, St. John's wort, common tansy;
  - -increase appetite: basil, celery, coriander, cumin, dandelion, dill, yarrow;
  - wound healing: externally basil, snakehead, plantain, calendula;
  - soothing: valerian root, fennel (fruit), cuff, coltsfoot, hops, dill, oregano;
  - -bloodstaffing: pepper and pochechuyny highlander, Shepherd's Purse, japanese sophora;
- rich in vitamins: chervil, coriander, nettle, cinnamon rose hips, dill, extragon, St. John's wort, fennel, carrots, celery, lovage, parsley, anise;
  - wormwood: garlic, wormwood, tansy, birch buds.

However, it should also be borne in mind that the smell of valerian seems to cats similar to the smell of sex hormones, so cats react violently to valerian drops and it is better not to give them this remedy.

**Conclusions**. Today, animal diseases have undergone significant changes, both in structure and in severity. In the first place are chronic diseases of the skin, digestive organs, excretory system, chronic disorders of the kidneys are often found. These features of the course of diseases largely correspond to the spectrum of action of modern phytopreparations.

## SELECTION OF EXCIPIENTS IN THE DEVELOPMENT OF TABLET MEDICINES BASED ON PLANT EXTRACTS

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**Introduction.** Among the methods of obtaining tablet drugs with plant extracts, the method of wet granulation is common, however, solutions used to moisten mixtures of powder masses in the process of wet granulation can lead to irreversible chemical processes. Therefore, the method of direct compression is considered by scientists as the optimal technological method of obtaining tablets with dry plant extracts. If it is necessary to adjust the technological properties of powder masses for tableting with plant extracts, certain groups of excipients are introduced into their composition, which ensure the accuracy of dosing, the required disintegration time, strength and stability of tablets during storage.

**Purpose of the research.** Consider the current excipients used in the production of tablets with dry extracts, obtained by direct compression; to link the indicated above with the selection of excipients in the creation of tablets of dry extract of Sanguisorba officinalis roots.

Materials and methods. Methods of information search, analysis and generalization were used.

**Obtained results.** Excipients of a new generation, among whose quality indicators are good compression and fluidity, are gaining considerable popularity in the pharmaceutical industry, in particular in the production of tablet drugs. One such substance is prosolv SMCC, which is a mixture

of microcrystalline cellulose and silicon dioxide. Its introduction into the composition of powder masses improves such an indicator as fluidity.

Another excipient with unique properties is neusilin US 2, which is a granules of amorphous magnesium aluminometasilicate with a large specific surface area, significant adsorption capacity, which creates conditions for stabilization of hygroscopic plant extracts, improves their sliding properties. Its use as a component of the tablet mass can reduce the force of pressing of the tablets and increase their strength due to this improves the disintegration of the tablets.

Particular attention is paid to the determination of binders in the preparation of direct compression tablets, which must be well compressed, well mixed with other components, and have physical and chemical stability. Currently, the above properties have a small number of excipients. One such substance is microcrystalline cellulose. Scientists have found that to give the powder mass of regulated properties, it is enough to add 5-20% of microcrystalline cellulose. The advantages of this excipient include its moisture-absorbing properties, which is a particularly valuable feature in the production of tablets with dry extracts. Also on the basis of microcrystalline cellulose and lactose, an excipient from the group of fillers – microcellulose 100, which is introduced to improve flowability and compression, was obtained. Pearlitol 200 SD or pearlitol 500 DS is also used as a filler for direct pressing, which also gives the powder mass good flowability and compressibility.

An excipient such as ludipress, which is a mixture of lactose and collidones, is used to improve the compression and flowability of the tableting powders and the solubility of the tablets. As an excipient that improves the solubility of tablets, crospovidone is used, the value of which in the composition of powder masses with extracts is that it is hydrophilic and able to absorb water.

In processing the model compositions of tablets based on dry extract of Sanguisorba officinalis roots in order to select the components we used the method of mathematical planning of the experiment, studying the effect of 25 excipients on the pharmacological properties of powder masses and tablets based on them, including the above modern substances. This allowed to adjust the pharmaco-technological properties of dry extract of Sanguisorba officinalis roots – its hygroscopicity and associated unsatisfactory fluidity, due to the introduction of modern excipients. As a result of the research, the composition of tablets under the conditional name «Gastro-San» was determined, the excipients of which are compre sugar, prosolv 90, croscarmellose sodium, neuselin US 2, calcium stearate.

**Conclusions.** Thus, based on scientific sources, modern excipients used in direct compression were analyzed, the selection and addition of which to powder masses with plant extracts contributes to the improvement of pharmaco-technological properties, that was done in the pharmaceutical development of the drug in the form tablets of dry extract of Sanguisorba officinalis roots.

## EVALUATION OF THE CHEMICAL COMPOSITION AND SKIM MICROBIOTA METABOLISM OF CALENDULA OFFICINALIS L.

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**Introduction.** Chemical compounds extracted from *Calendula* have been used for thousands of years, worldwide, as prevention of diseases or as adjuvants in their treatment. Phytochemicals are