

*Materials of Conferences***THE COMBINED SPIRAL-SCREWED
DEVICE**

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The Spiral-screwed device is intended for simultaneous loading and staining by water suspensions pesticides seeds grain, bean and commercial crops against activators of diseases of seeds and for improvement of sowing potential. The given device consists of the loading and unloading spiral-screwed conveyors established on a frame - bands with wheels and actuating units, the basic bearing, a control panel, the intermediate bunker, capacity with a working liquid and the spiral-screwed amalgamator of dispensing of a liquid with a drive. By means

of the spiral-screwed conveyor its loading, further grain is carried out gets to the chamber treatments. The working liquid prepares at active hashing by the spiral screw, and then moves to spray apertures that allows to carry out uniform treatment.

Dispensing and mixing with simultaneous transportation liquid toxic materials and biological products on pipes by means of spiral-screwed working bodies is most economic of all known ways in practice.

Prominent feature of the offered installation is its universality and use possibility, as in stationary, and mobile variants. For treatments in the pipeline on a lateral surface on all length of a casing delivery apertures are located.

The expense on length of a pipe through apertures at rotation of the spiral screw will be calculated under the formula:

$$Q_i = \frac{\mu \cdot \pi \cdot d^2}{4} \sqrt{2 \cdot g \left(H_0 + l_i \sin \alpha - \frac{\lambda}{36 \cdot D^5} Q_0^2 l_i + \xi \frac{u^2 \cdot l_i}{2gs} \right)}.$$

Change of diameters of delivery apertures depending on length of a highway, according to the received theoretical expressions, allows to carry out uniformity of giving toxic materials on length of the pipeline that corresponds to the agrotechnical requirements shown to pickling devices.

The received theoretical dependence and the developed program for optimisation of the sizes of

delivery apertures of the pipeline allows to receive constant account characteristics in amalgamators and bathers.

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