The invention refers to agriculture, in particular to a process for cultivation of mushrooms and plants as well as to the installation for realization thereof.

The process provides for the cultivation of mushrooms and plants in adjacent chambers and realization of air recirculation between such chambers. Intensity of air recirculation is determined by the relations:

$S_d = M_s \cdot N_{ac} \cdot t_2/t_1$, m^3/min;

$S_n = M_s \cdot 0{,}5N_{ac} \cdot t_1/t_2$, m^3/min,

where:

S_d – intensity of air recirculation between the chambers during the day;

S_n – intensity of air recirculation between the chambers during the night;

M_s – mass of substrate in the chamber for cultivation of mushrooms, T (max);

N_{ac} – the optimal norm of air change necessary for cultivation of mushrooms, 1…3 m^3/min/T;

t_1 – air temperature in the chamber for cultivation of mushrooms, °C;

t_2 – air temperature in the chamber for cultivation of plants, °C.

The installation for combined cultivation of mushrooms and plants contains two adjacent chambers: the chamber for cultivation of mushrooms and the chamber for cultivation of plants, a system of air recirculation between the said chambers, controlled by a control and measurement unit with temperature sensing elements and channels for air recirculation, placed in the upper and lower parts of the wall, separating the chambers for cultivation of mushrooms and plants. The channel for air recirculation placed in the lower part is additionally provided with a fan for air discharge under pressure and draw off the chamber for cultivation of mushrooms into the chamber for cultivation of plants, and with a heating device. The roof of the chamber for cultivation of mushrooms is made of thermoinsulating, transparent materials for sunbeams in the proportion of 3…10%, besides into the chamber there are placed thermoaccumulating elements.