

ASSORTMENT OF PLANTS FOR IMPROVING INDOOR AIR QUALITY IN MEDICAL INSTITUTIONS

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Plants in general and especially protected ground plants have a beneficial effect on human health, performing a number of functions. One of them is microclimate improvement as a result of the increase in air humidity, air ionization, increase in the amount of oxygen and decrease in the amount of CO₂ in air, as well as the reduction to some extent of noise pollution, which positively influences the human psyche.

Another important function of indoor plants is to clear the air of dust, toxic chemicals and pathogenic microorganisms that can cause various diseases. Plants produce biologically active volatile substances – phytoncides, which have antimicrobial properties.

Greenhouse plant collections were used as material for research. Phytoncide activity was determined according to the methodology of A. M. Grodzinski (1973).

As a result of testing a large number of species, about 300, over several years, in order to determine their phytoncide content and using data from literature on growing indoor plants for decorative purposes and for improving air quality in medical institutions, we suggest an assortment of tropical, subtropical and succulent plants.

Species with high phytoncide activity: *Aglaonema commutatum* Schott., *Alocasia macrorrhiza* Schott, *Aloe variegata* L., *A.arborescens* Mill., *Anthurium andreaeanum* Lindl., *A.magnificum* Lindl., *Aspidistra elatior* Bl., *Aucuba japonica* Thunb. var. *variegata*, *Begonia masoniana* Irmsch., *B. hereacleifolia* Cham.et Schl., *B.manicata* Brogn., *B.maculata* Radii, *B. metallica* W.G.Smith, *Euonimus japonicus* Thunb., *Jasminum sambac* (L.) Ait., *J.polyanthum* L., *Kalanchoe blossfeldiana* V.Poelln., *K.daigremontana* Hamet et Perriet, *K.pinnatums* Kurz., *K.marmorata* Baker, *K.tomentosa* Baker, *Coleus hybridus* Voss, *Laurus nobilis* L., *Monstera deliciosa* Lieb., *M.karwinskii* Scott., *Nephrolepis exaltata* (L.)Schott, *N.corrifolia*(L.)C.Presl, *Pelargonium grandiflorum* Willd., *P.odoratissimum* Ait., *P. Peltatum* Ait., *P.zonale* Ait., *Peperomia clusiefolia* Hook., *P.maculosa* Hook, *P. obtusifolia* Dietr., *Hedera helix* L., *Rosmarinus officinalis* L., *Sansevieria grandis* Hook, *S.trifasciata* Prain, *Ficus benjamina* L., *F. elastica* Roxb.ex Horn, *Cisus antarctica* Vent., *Roicissus rhomboidea* Planch., *Dracaena draco* L., *D. deremensis* Engl., *D. marginata* Lam., *Tetrastigma voinierianum* Pierre ex Gagnep, *Philodendron selloum* C.Koch., *Ph.erubescens* C.Koch et Augustin, *Ph.scandens* C.Koch et Sello, *Syngonium podophyllum* Schott, *Xanthosoma violaceum* Scott., *Myrtus communis* L., *Plectranthus fruticosus* L, Herit., *P.coleoides* var. *Variegatus.*, *Diefenbachia maculata* G.Don, *Acalipha wilkesiana* Muell., *Euphorbia tirucalli* L., *E. milli* Moulin, *Murraya paniculata* Jasq., *Justicia carnea* Lindl, *Ruellia amoena* Ness, *Sanchesia nobilis* Hook.f., *Hibiscus rosa-sinensis* L., *Agave americana* L., *Yucca elephantipes* Regel, *Sanchezia nobilis* Hook., *Clivia miniata* Regel, *Haemanthus albiflos* Jasq., *Schefflera actinophylla* Harms, *Gasteria fasciata* Haw., *Hawortia obtusa* Haw., *Asparagus sprengeri* Regel, *A.falcatius* Linn., *Crassula arborescens* Willd., *Ophiopogon jaburan* Lodd., *Psidium cattleianum* Sabine, *Pittosporum tobira* Dryand., *Abelia x grandiflora* Rehd..

The optimization of the indoor environment in medical institutions requires knowledge of the conditions and peculiarities of each room, so, actually, developing an ecological passport. It is also necessary to know the requirements and possibilities of each species used for this purpose.

REFERENCES

Гродзинский А.М. *Фитодизайн и фитонциды* – К., Наукова думка, 1973