

SCIENTIFIC STUDIES

Since ever **KONTAK** combines the passion for propolis with a scientific approach, investing in research and development, and collaborating with doctors and specialists.

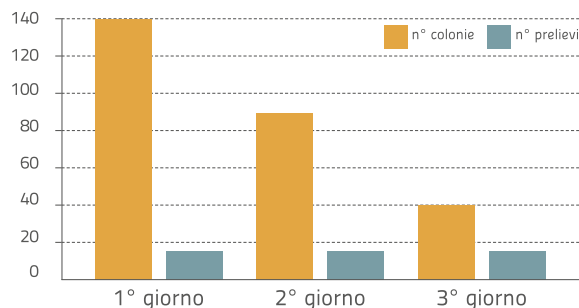
The demonstration of the validity of PROPOLAIR system is confirmed by several scientific studies, including:

STUDY "MICROBIAL REDUCTION IN CLASSROOM SCHOOL-AIR SANITATION"

(Biologi Italiani, feb.'96)

To evaluate the effectiveness of propolis to sanitize crowded environments, the Collegno Healthcare Company (ASL) installed propolis diffusers for 3 consecutive days in a classrooms and compared the air samples taken **before** and **after** using the diffuser.

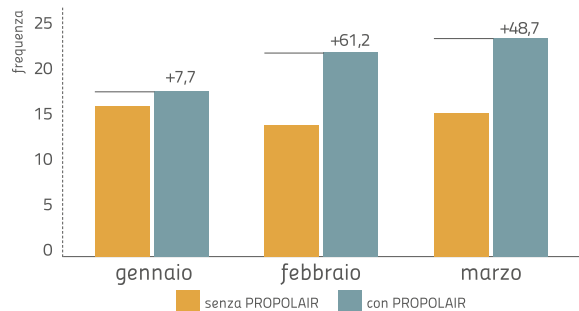
Already in so few days, the effects recorded have been truly amazing: **71.3% decrease in the microbial load** accumulated in the air during the day; **cleaner air with fewer bacteria**; consequent reduction of the risk of viral and respiratory diseases.



STUDY "PREVENTION AND INCREASE IMMUNE SYSTEM"

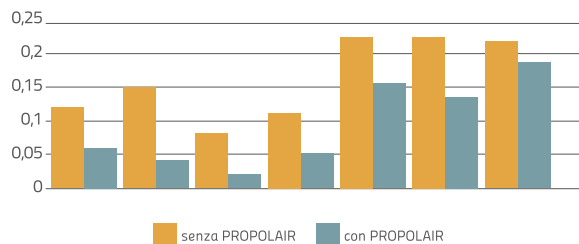
This scientific study was carried out at the Association House Nursery Kindergartens (MI).

The study found that, throughout the period in which the PROPOLAIR diffuser was used, the number of **children's absences** due to illness significantly **decreased**, and children appreciated the slight scent emanating from the volatile fraction extracted. There were no manifestations of allergy or intolerance to propolis. In addition, during the following year, there was a **higher frequency** up to 62.,1% in February.



STUDY "REDUCTION BENZENE AND IPA"

The study carried out by the Chemical Laboratory of the Chamber of Commerce of Turin, has showed that with the use of PropolAir diffusers they obtained a **reduction of up to 82% of Pyrene and Fluoranthene**, waste substances from the combustion of fuels for cars, defined by OMS (WHO) as carcinogens. The removal of benzene was 15%.



PROPOLIS VOLATILE FRACTION

THE VOLATILE FRACTION ... A MIX OF BENEFICIAL PROPERTIES

The analysis of air samples collected with the PROPOLAIR diffuser in operation, highlighted how the timed heating produced by **the diffuser ensures the extraction of all the active ingredients contained in the propolis**. These principles, different in composition, are gradually released at different temperatures.

To verify the properties of the extracted elements, KONTAK compared the collected data with the information present in the MEDLINE database, the most important worldwide biomedicine database. The results of the analyzes carried out by the Chemical Laboratory of the Turin Chamber of Commerce confirm the **numerous therapeutic properties of the substances released by the diffuser**:

R.T. min	COMPONENTE	N°1	N°2	N°3	N°4	N°5	N°6
7,71	BENZYL ALCOHOL	X	X	X	X	X	X
8,48	N-UNDECANE	O	O	O	X	X	X
8,54	LINALOOL	X	O	O	O	O	O
8,61	NONANAL	X	X	X	X	X	X
8,90	PHENYL ETHYL ALCOHOL	X	X	X	X	X	X
9,54	BENZYL ACETATE	O	O	O	X	X	X
10,15	DECANAL	X	O	O	O	O	O
10,41	BETA-CICLOCITRAL	X	O	O	O	O	O
10,88	PHENETHYL ACETATE	O	O	O	X	X	X
12,60	ALPHA-COPAENE	X	O	O	O	O	O
13,48	CINNAMYL ACETATE	O	O	O	X	X	X
13,74	ALLOAROMADENDRENE	X	O	O	O	O	O
13,88	ALPHA-AMORPHENE	X	O	O	O	O	O
14,10	BETA-SELINENE	O	X	X	X	X	X
14,11	(+)- AROMADENDRENE	X	O	O	O	O	O
14,15	ALPHA-SELINENE	O	O	O	X	X	X
14,18	ALPHA-MUUROLENE	X	X	X	O	O	O
14,38	GAMMA-CADINENE	X	X	X	X	X	X
14,42	DELTA-CADINENE	X	X	X	X	X	X
14,48	1S, CIS-CALAMENENE	X	X	X	X	X	X
14,68	VALENCENE	O	O	O	X	X	X
14,74	ALPHA-COLACORENE	X	X	X	X	X	X
15,77	CADINA-1,4-DIENE	X	X	X	X	O	O
15,83	10-EPI-GAMMA-EUDESOL	X	X	X	X	X	X

- antibiotics
- anti-inflammatory
- antifungals
- antioxidants
- antiviral
- bacteriostatic
- antiseptics
- immunostimulants

The great value of propolis lies in having these properties concentrated together in a single product of natural origin.

The merit of the PROPOLAIR system is to allow the extraction and diffusion in the environment of all these principles, recognized and used also by official medicine.z

X - present component
O - absent component