Research of agrochemical industry is driven mainly by the complexity of the regulatory requirements and by the growing sensibility for the safety of environment and users; factors leading to a significant increase of resources needed for developing and registering a new agrochemical. Furthermore, globalization is increasing the risk of introduction of alien pests or pathogens. The Research Center of Isagro, placed in Novara, combining high level of competencies in Biology, Chemistry and Formulation Technology, is operating to provide farmers with innovative solutions in line with new requirements.

The research of chemicals, still the base of a rational crop protection program, is looking for molecules more targeted, effective and sustainable and featured by new mode of actions to counteract possible risk of resistance. New typologies of formulations, or delivery systems, will help to rejuvenate existing active ingredients. Innovative formulations of copper products (i.e. Airone®) may overcome the strong restrictions of dosage rate proposed for EU.

Antagonistic fungi and bacteria are efficiently used in integrated crop management program (i.e. Remedier®). Research is targeting purity of production processes, effective formulations and shelf-life at room temperature; many aspects of the mode of actions are still to be investigated.

Concerning “Natural Products” (i.e. plant extracts, essential oils, etc.) there are lot of studies from Academics but still few practicable solutions for market. Efficient industrial scale-up, standard quality of active ingredient and fitness in crop programs are the main objectives for research.

In Insect control, the use of biodegradable materials will be key in the pheromone dispenser systems. Also, more sustainable products are required to replace the old fumigants banned for their eco-toxicological issues.