



South Korean Apple Farm **Reduced Bird Damage by 95%** with the AVIX Autonomic Laser Bird Deterrent

Location	Seosan, Chungnam, South Korea
Application context	Apple farm
Problem definition	Bird damaging the apples
Bird species	Magpies, crows, brown-eared bulbul
Bird behavior	Foraging
Time of the year with bird problems	August ~ November (Period of ripening)
Laser projection area	4.2 ha
Number of systems	3 x AVIX Autonomic Mark II
Birds reduction after the system has been installed	95%
In use since	August 23, 2023
Number of birds before laser deployment	150
Number of birds before laser deployment	8
Yearly cost of bird damage before laser deployment	USD 38,000
Yearly cost of bird damage after laser deployment	USD 1,900



4.2 ha of apple trees in Seosan, Chungnam, South Korea



Magpies, crows, brown-eared bulbul damaging apples



95% bird damage reduction after the laser deployment

The installation of the laser system not only prevented bird damage, but also improved the quality of fruit production.

Park Kwang-gyu is an esteemed apple farmer in Seosan, Chungnam, South Korea, deeply invested in the continuous improvement of apple farming practices in the region. He has dedicated his life to the cultivation of quality apples, serving as chairman of both the Chungnam Apple Development Research Society and the Seosan Apple Research Society.

Like many fruit growers, Park Kwang-gyu faced a persistent challenge: wild bird damage to his fruit orchards. For years, he observed how bird damage typically occurred approximately a month before harvesting, just as the fruits began to exhibit their vibrant colors. Despite employing traditional methods such as installing bird nets and scarecrows, Park Kwang-gyu found that these measures often fell short of providing adequate protection against avian pests.



Determined to find a more effective solution, he decided to explore the potential of the AVIX laser technology for deterring birds from his orchards. With careful consideration

and meticulous planning, he installed three AVIX Autonomic laser bird deterrents on his farm under the guidance of Ganaindus, a South Korean pest control company that specializes in laser bird control technology.

Initially, Park Kwang-gyu harbored doubts about the effectiveness of lasers in bird deterrence. However, to his pleasant surprise, the results exceeded his expectations. The lasers effectively discouraged birds from approaching the orchards without causing any noise disturbances or external issues. Notably, bird damage was completely prevented, leading to a remarkable improvement in the quality of fruit production. Before implementing the laser bird deterrent system, the apple farm incurred annual losses of \$38,000 due to bird damage. However, since the installation of the laser system, these losses have plummeted by an impressive 95% to just \$1,900 per year.

Park Kwang-gyu emphasized the significant advantage it offered over traditional methods. While bird nets and scarecrows had their limitations, the introduction of lasers marked a transformative milestone in his farming practices. With each laser covering over 4,000 pyeong (3.3 acres) of his 12,600 pyeong (10 acres) farm, the collective effect resulted in the prevention of approximately 99% of bird damage.

Following the successful installation of the lasers, Park Kwang-gyu remains at the forefront of advancing apple farming in his region, anticipating further enhancements in productivity and sustainability.