Agriculture Applications Using Labino Ultra Violet Lights



Protect crops from diseases using water based fluorescent, food grade dye penetrant and Labino Ultra Violet Lamps.

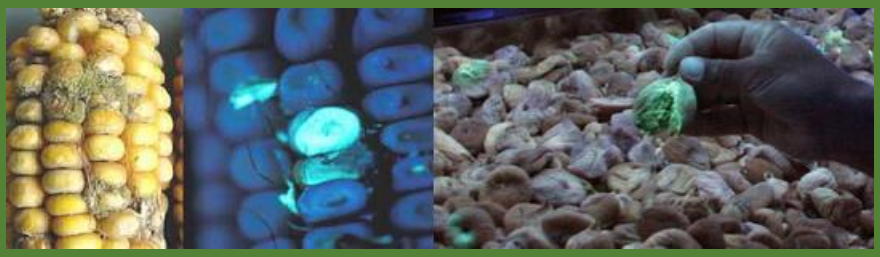
Preventive Crop care for vineyards and orchards

Prevention is an effective strategy used to protect crops from diseases. By applying bactericides you can protect leaf scars and other injuries and minimize the disease. It is of utter importance that the process is repeated, especially during the wet and dry seasons, to protect new wounds as they appear. Grapes, almonds, walnuts, olives and prune growers are examples of crops that benefits from this treatment with great success. Application process:

⇒ Fill a water based, fluorescent, food grade dye penetrant into a reservoir attached to the sprayer.
⇒ Spray the dye onto the crops and orchards during the day.
⇒ Inspect the density and coverage of the dye onto the crops after sunset, with the UV light.

Detection of Aflatoxin and Mold with UV at early stage

Aflatoxins are cancerous chemicals produced by special types of mold that are contaminants of such foodstuff and feeds as corn, peanuts, sorghum, copra, pistachio nuts and cottonseed. Aflatoxin contamination usually does not appear in the field. Commonly, it develops when harvested crops are stored in damp places where mold grows easily. If aflatoxin is detected at early stage, it can be isolated and stopped from spreading. This helps to prevent contamination of products, financial loss, and ensure the safety of farm products. A simple UV test helps to identify the presence/absence of aflatoxin and mold. If a fresh sample fluoresce greenish-gold under the UV light illumination, most probably aflatoxin is present, but additional laboratory tests are typically required to make final conclusions.



Visualize early Penicillium with UV

By illuminating with the Labino UV light you are able to visualize early Penicillium spp. infections on citrus fruit. The infected tissue fluoresces bright yellow as shown in the pictures below. The Labino BigBeam Helios performs extremely well with this application.

Rodent Control with UV

For sanitation purposes, it is important to identify rodent presence in all areas of food industry. Rodent urine and hair fluoresce under the UV light 365 nm; therefore in order to identify rodent presence, the area in question should be simply illuminated with the UV light. Rodent hair fluoresces blue-white and can be easily noticed on sacking material or when intermixed with food grains for example. Rodent urine glows blue-white to yellow-white when dry. Fresh urine glows predominantly blue.

SuperXenon for high intensity in sun light

SuperXenon is a high intensity light, perfect for out dorrs inspection in broad day light. The lamp offers a 50 watt bulb, together with a Midlight reflector you will get a very good coverage. SuperXenon is available with pistol handel and top handle, as well as battery or AC operated.

BigBeam Helios Midlight for Large Coverage

BigBeam Helios Midlight offers a wide beam for large coverage and hands free inspection. You can mount the BigBeam in several ways. Either with a mounting bracket on a machine or on a friction arm. It is also very useful for handheld inspection using a pistol handle. BigBeam is available as battery operated as well as AC.

MidBeam 2.0 for Hand Held Inspection

MidBeam 2.0 is a small handheld lamp with excellent coverage for its size. The lamp is available as battery or mains (AC) operation. If a hands free inspection is required the lamp can easily be mounted on a friction arm or on a flexible arm.

UV Torch Lights

Labino offers a wide range of torches. The most popular UV torch for agriculture applications is the UVG2 or 3 Midlight. Light weight tools offering a high intensity and good coverage.

Model	UV Intensity at 38 cm (15'')	Beam coverage at 38 cm (>1200 µW/cm²)	Installation
SuperXenon	>17000 µW/cm²	≈ 230 mm (9.0'')	Handheld or fixed installation using a friction arm.
BigBeam Helios Midlight	>8000 µW/cm²	≈ 275 mm (10.8'')	Handheld or fixed installation using a mounting yoke or a friction arm.
MidBeam 2.0 Zeus	>5 000 µW/cm²	≈ 200 mm (7.9'')	Handheld or fixed installation using a flexible arm or a friction arm.
Torch Light UVG2 Midlight	>10 000 µW/cm²	≈ 100 mm (3.9'')	Handheld. Tripod is available.