



TV

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## UN IN ACTION

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### CROATIA: TACKLING FRUIT FLIES WITH NUCLEAR TECHNOLOGY

#### VIDEO

WS. NERETVA VALLEY

MAN HARVESTING ORANGES

PROCESSING FRUIT

CU. ORANGES BEING

HARVESTED

FRUIT FLY/LARVA

INTRO SHOT TO MARIO BJELIS

MARIO BJELIS ON CAMERA

#### AUDIO

#### NARRATION

Neretva Valley, Croatia. 2

Fruit Production is big business.

Producing over 70,000 tons of mandarin for local and mainly international markets, and employing ninety percent of the people living here. 12.5

But there's a problem – the Mediterranean fruit fly – a pest laying eggs in fruit – damaging the pulp and ruining the livelihoods of farmers and exporters. 11

Mario Bjelis, the assistant director of Croatia's Institute for Plant Protection. 5

BJELIS: (ENGLISH) M

*"Neretva valley produces over 90 percent of the mandarins of Croatia. More than 70 percent is exported to countries which don't accept residues of pesticides on the fruit... don't allow the import of*

*infected fruit.”* 18.5

NARRATION

CONVEYOR  
ROTTEN ORANGES

One-third of all fruit grown here is being destroyed by flies. Croatia must find a solution to keep its fruit free of pests and insecticide. 10

ANDREJ GACARI DRIVING HIS  
MINI-TRACTOR

Andrej Gacari, a farm owner in the valley. 3.5

GACARI: (LOCAL DIALECT) M

GACARI ON CAMERA

*“I’m naturally interested in a healthy product, one without fruit fly and without pesticides so it can be sold anywhere in Europe.”* 8.5

NARRATION

FRUIT FLIES SWARMING ON A  
PETRI DISH

To help farmers protect fruit, the International Atomic Energy Agency, IAEA, and the Food and Agriculture Organization, FAO, introduced the Sterile Insect Technique. It uses radiation to sterilize male flies produced in mass rearing facilities. Andrej and other farmers are benefitting from the project. 22.5

FLY STERILIZATION  
PROCESSING LAB

GACARI: (LOCAL DIALECT) M

GACARI ON-CAMERA

*“I think this method is the only long term answer. It might seem expensive at the start but if you explain to the farmers they will gladly accept it, even cover parts of the costs.”* 13

NARRATION

RED PUPAE

The flies arrive from Spain as irradiated pupae// emerging as adult flies several days later. They’re released into the wild where they breed with

	females who in turn produce no offspring, suppressing the wild fly population. 15.5
FLYTRAP ON A TREE	The positive results of the project can be seen by trapping flies in the release areas to see if the sterile ones are outnumbering their wild counterparts. 8.5
WOMAN CHECKS THE FLYTRAP	
MAN EXAMINES FLIES WITH MICROSCOPE	Ultra violet light identifies the wild flies from the sterile ones, which are marked with a special dye prior to release. 8
FLY NET ENCLOSING A TREE	Some are placed under observation in field cages to check if they can compete with their fertile counterparts for mates. 7
ORCHARD	
COMPARATIVE SHOTS	Fruits from the project areas and those from outside the project areas are screened and compared for infestation levels. 6
CU. A FLY ON AN APPLE	The fruit fly is not just a Croatian problem, but one that affects fruit-growing regions all over the world. 4.5
CUTTING A ROTTEN APPLE	Rui Cardoso Pereira is an IAEA/FAO Entomologist. 5
RYUI PEREIRA TALKS ON CAMERA	<u>RYUI PEREIRA (ENGLISH)</u> M <i>“There are other projects in other parts of the world like Guatemala, all Central America, just to create pest free areas or low pest prevalence to allow them to export to markets like Japan, the USA. Chile just turned with this technique into a</i>

*country free of the Mediterranean fruit fly which gives them an enormous advantage to reach international markets.” 24*

#### NARRATION

HARVESTING ORANGES

Croatia is planning to increase its mandarin production to around 150 000 tons in the next few years and since only ten percent is needed for the domestic market that leaves a lot of fruit for export.

GACARI ON HIS MINI-TRACTOR

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PROCESSING FACTORY

If the integrated use of the sterile insect technique continues to be a success this will mean less fly damage, a healthier product for the consumer and a brighter economic future for the people in this region.

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UN LOGO CLOSING

This report was produced by Louise Potterton for the United Nations. 5