

APPROACHES TO PROTECT ENDANGERED AREAS ON AIRPORTS FROM BIRD POPULATION  
BY XIRONET<sup>(R)</sup> BIRD PROTECTION NETTING

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### Introduction

The purpose of this presentation is to put forward some ideas on the use and application of Xironet<sup>(R)</sup> nettings against birds on airports.

On a seminar, which took place in 1976 at the Bowling Green University in Ohio USA it was said that the first recorded bird strike accident was in 1912, when a gull got caught in an aircraft control cable. The pilot was killed in the crash. Since that first squaring-off, man and bird have been engaged in an accelerating contest in which there can be no winner.

At first, birdstrikes were not really much of a problem. Aircraft were slow, and birds were able to learn to move out of their paths in time to avoid a collision. But, with the coming of the jet age, the problem began to take on more sinister proportions. At this point, birds ceased to be a minor annoyance and became instead a serious hazard to the safe operation of aircraft.

Xiro Inc. is a manufacturer of plastic films and nettings and started some years ago to develop a netting which was inexpensive enough to be spread over large crops or cultures. Mainly the more expensive type of cultures such as vineyards, cherries, berries, seed production in certain areas are under permanent danger from bird damage. Although a wide choice of nettings existed already, it was until today not possible to fully cover the crops as the cost/yield ratio was not satisfactory for the farmer.

### Application of Xironet today

The following slides should offer an impression of how Xironet bird protection netting is used and applied today.

Xironet is supplied in rolls of 100 cm width, wherefrom the material is unrolled. The netting is expansible up to 8 or 10 metres. The required laying width can be chosen according to the given circumstances. The glittering linkage points and the yellow colour of the netting are providing a permanent scare effect.

Today Xironet in Europe has become the number one bird protection netting in Agriculture, in Wine Growing for large area protection. For instance in Switzerland we have covered last year approximately 10% of the total wine production surface.

When we heard about the bird problems you have to face in airport control, we thought it would be worthwhile making an attempt in order to find out the possibilities to control birds on airports with Xironet bird protection netting.

As we have had only a few weeks time to investigate various possibilities, we have chosen the small Airport Belpmoos (Belp near Berne) to do some practical work and prepare alternatives, to be presented today.

Proposals of application methods on airports with Xironet (R)

We have been trying to find methods which will prevent birds from flying in and land on the areas nearby the runways. There are 3 ideas which we would like to demonstrate more detailed and you will find the proposals on the following pictures:

1. Xironet laid flat on the ground

The net is being unrolled from the original roll (width 100 cm), expanded up to the required width and laid over the ground. Small hooks help to fix the net on the ground. This will stop the net from moving when aircraft start or land.



The net is laid easily and quickly on the ground, quickly fixed and easily removed.

2. Net fixed on piles at a distance of approximately 8 m and fixed on the ground

The idea was to build up a sort of a "shed type roofing". The distance from one row to the next row was chosen in a way that it would not be possible for birds to land from either side.

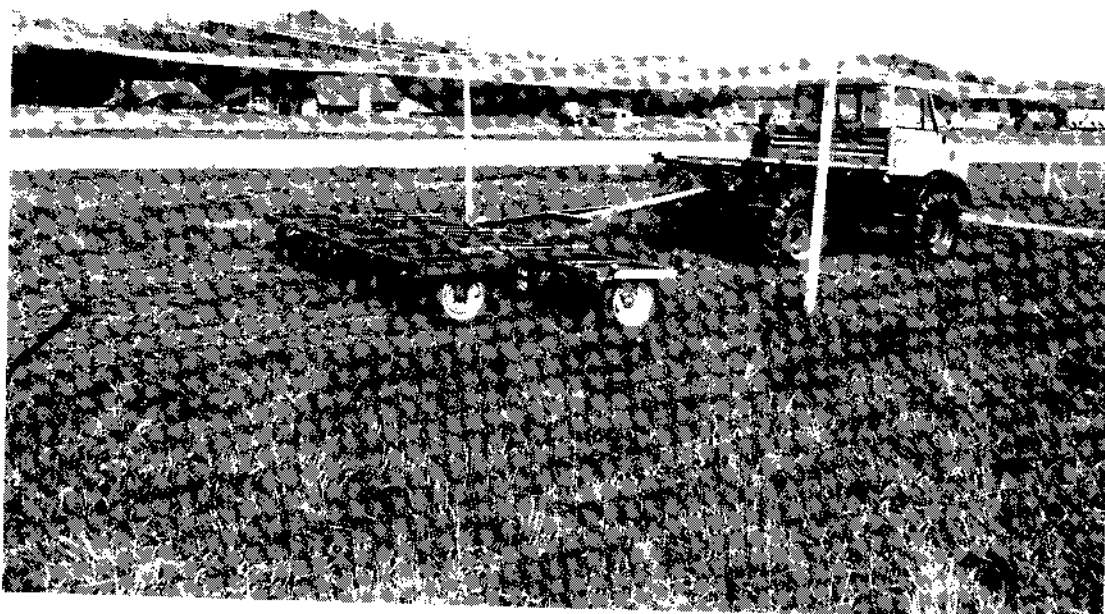
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This system offers the advantage that once an infrastructure is built up, it can always be reused. Part of the lawn could be mown without removing netting or piles.

3. Roof covering

We built a structure of approximately 2,20 m high piles and placed the net over the piles to form a total flat roof. The open sides and ends could be completely closed. With this system the lawn can permanently be mown and birds have no chance to enter and to land. Wherever an infrastructure owing to safety reasons cannot be mounted, this system may not be feasible.



Where we have bushes, marshy ground or other obstacles, populated by birds, the netting can just be spread over the area, such as it is done over cherry trees, vineyards or other crops. The required technical equipment to cover relatively high bushes is normally available on airports. From the enclosed sample you will be able to find out yourself how easily the material can be expanded and placed over the area to be protected.

#### Summary

From agriculture we have learnt that netting is the most useful and valuable mean to protect crops against bird damage. The proposals demonstrated were attempts to show alternative uses of nettings on airports.

There, it is even more important that an endangered area can be protected in a short time and the material eventually removed just as quickly.

Compared with other bird scare methods, netting seems to be the only method to work satisfactorily. Netting provides the physical barrier to keep birds out. It is reported that other systems fail, as birds get accustomed. Furthermore, this physical netting barrier has a price level, which makes the application worthwhile. In Europe a hectare of bird protection netting (wine, berries, etc.) will cost approximately SFr. 800.-- not including the cost for the labour of laying.

As the protection methods could be adapted to the local requirements, Xiroca should refer to the already known protection means as a very valuable and new method.

If you have any other suggestions to put forward, we shall be pleased to discuss them.

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