

REVLAM CANALETA GETS ESTABLISHED IN THE AGRICULTURAL MARKET OF ALMERIA

Ever since Sotrafa presented it in summer 2010, it has been received very well by the farmers.

The first greenhouses were built in Almeria 50 years ago. At first agriculture was regarded as a subsistence activity. However, currently it is the economic engine of the province. Thanks to the farmers' effort, appropriate climate, innovating techniques, etc. the intensive agriculture in Almeria is a global model. Sotrafa has participated in the model "Almeria" from the very beginning, providing the farmer with products, investigating new applications, giving advice on improvement techniques, Setting a challenge: **"help the farmers improve their production"**.

In summer 2010 the range "REVLAM" was presented whose leading product was: "Revlam Canaleta".

REVLAM CANALETA is a translucent sheet which is ideal for the elimination of water collected during the rain, especially in such types of greenhouses as "raspa y amagados" (greenhouses with a sloping roof design). The improvements are the following:

MATERIALS TO BE REPLACED:



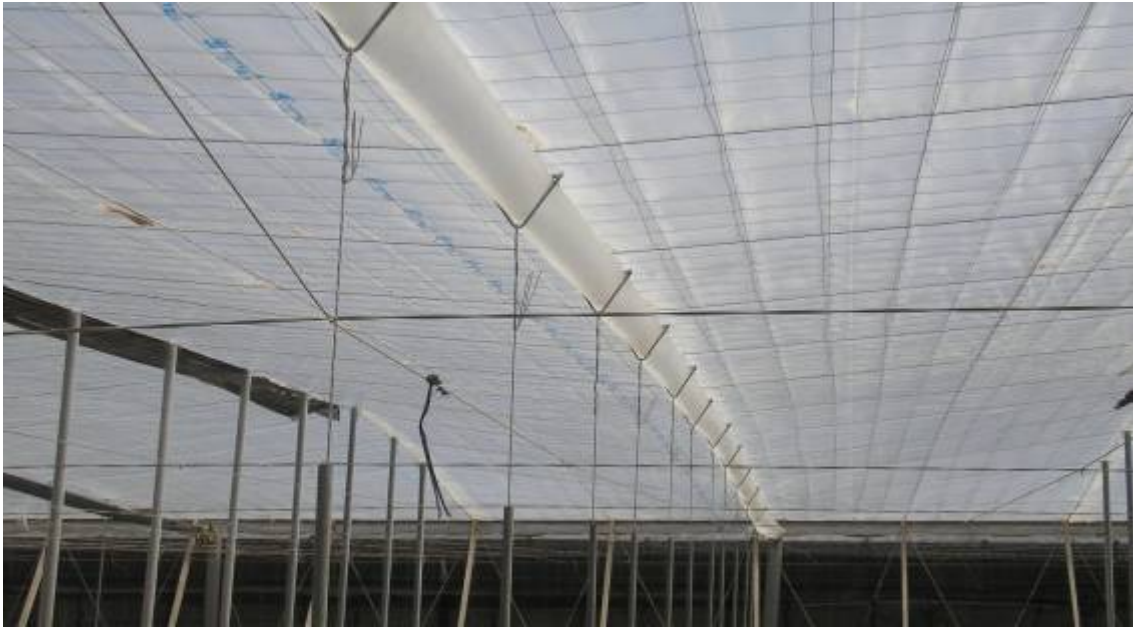
Very fragile material



Oxidised material



REVLAM CANALETA:



Revlam Canaleta installed.

The precipitation is not very abundant in Almeria province. Water is scarce, therefore, we must collect and store it especially if it damages the crops during the rain.

To install Revlam canaleta it is not necessary to make any modifications in the structures of those greenhouses where other materials were used. Its design (gutter) was one of the aspects we took into consideration. The farmers will only have to renovate the materials they were using before: Plate, Film, Polypropylene, etc. Nevertheless, it will be necessary to modernise the oldest structures. There are still flat greenhouses with perforated plastics where all the water (when it rains) falls inside the greenhouse. The investment in improvements will have a positive effect on profitability for the farmer in a short term.

The material is presented in spools with 2 synthetic threads welded in all the length of the sheet and both sides of it. Its useful life is estimated at 8-10 years.

The main advantages of “Revlam Canaleta” in relation to other products:

| OTHER PRODUCTS | ADVANTAGES: REVLAM CANALETA |
|--|---|
| ...sheets/material are to be placed by sections | ...easy to be placed, sheets measure: 130-100 and 60 m. |
| ... lose water in the joints with the pass of time | ...resistant to wearing out, excellent melding qualities |
| ...get oxidised and rotten | ...doesn't need any maintenance |
| ... take light away from the crops | ...translucent, doesn't take light away from the crops |
| ...are very fragile materials | ...a sheet with 2 welded threads resistant to wearing out |
| ...its useful life is shorter | ...its useful life is above 10 years' time |
| | ...quick and cost-effective assembly |

In order to install this product correctly, we recommend watching a video which we uploaded to Youtube and follow the instructions. The link to access this video is the following: <http://www.youtube.com/watch?v=qPqRtZoh8Rg>

At present there are already many hectares where Revlam Canaleta was placed. The product has been received well by our clients and an evidence of this is our observation: **“the client who tries it in one of their greenhouses always comes back”**. This type of gutter is not exclusively designed for Almeria’s greenhouses. For this reason, we supply both our national and also international clients.

In collaboration with our clients from Huelva we have developed a small modification for the structure of their greenhouses which will make the installation of “Revlam Canaleta” possible as well. At their premises they have other types of crops: strawberries, raspberries, blackberries, etc., and they are tunnels covered with plastics where the farmer looks for a type of microclimate to favour the production and the quality of their fruit. Thanks to this small modification and Revlam Canaleta it will become possible to collect the water and avoid problems of dampness, fungi, botrytis, etc.

There is also a kind of **mini – canaleta (gutter)** for the collection of water in anchor points from the cover to the structure of the greenhouse, avoiding this way the fall of water on the plantation. This mini – gutter is tied to the structure of the greenhouse with the help of a hook which can be easily installed. It is mainly used in such types of greenhouses as “raspa y amagados” (greenhouses with a sloping roof design).

REVLAM CANALETA MINI



Hooks



Revlam Canaleta Mini

OTHER APPLICATIONS OF THE RANGE “REVLAM”

The range **“REVLAM”** contains not only different types of gutters but also sheets called “Revlam Agro” which are used as coating of several permanent parts of the greenhouse. Their main applications are to cover: zenithal windows, side bands, entrance halls,

These sheets are ideal to maintain the structure of the greenhouse unalterable for many years. Their useful life is estimated at 8-10 years though their resistance is much higher. Intensive agriculture, as its name suggests, doesn’t have enough time to make many rotations of different parts which form a greenhouse.

For this reason one of the objectives we set during the development phase was to create a product of long duration which, unlike other products, would keep the majority of its initial characteristics with the pass of time. Moreover, we wanted the investment a farmer has to make to be favourable for them or, at least, adjusted to the useful life of the product.

Among different applications of “Revlam Agro” mentioned above we can point out the following ones:

***ZENITHAL WINDOWS:** As a greenhouse can't be a closed space, it needs natural or forced ventilation. For this purpose a mobile structure that is a kind of a window is placed in the higher part of the greenhouse. It is opened either through special automatisms installed in the greenhouse or manually with the help of chains and/or pulleys. In different publications they usually recommend using at least 15 per cent of the greenhouse surface as ventilation (entry and exit of air). If we reduce this percentage, there will be a decrease in ventilation which would lead to problems for the crops. It is also important to emphasize the concentration of chemical products that would take place in these areas; the risk of getting deteriorated would be very high for the installed cover material. Our advice is to increase the ventilation surface or, at least, get to the level mentioned above. The coating which is commonly used is formed by plastic sheets (200 microns) and is the same as in the cover, polypropilen meshes, etc. With the installation of “Revlam Agro” we keep the concept but increase the useful life of the product and manage to prevent the plagues in the atmosphere from getting inside. These are the materials reinforced against chemical attacks and which maintain their mechanical and optical properties with the pass of time.



Dirty window without light transmission



Window with Revlam Agro

***SIDE BANDS:** They can represent about 12-14 % of the agricultural cultivation surface. They usually have the same material as in the greenhouse cover. Some farmers carry on using side bands as a ventilation system by opening and closing manually the higher part. In case of multitunnel greenhouses the side bands are usually fixed and sometimes in other types of greenhouses (like “el raspa y amagado”) as well. We keep the same concept as in case of zenithal windows emphasizing one point which is really important: the materials placed in side bands near the roads, areas with strong winds,experience a very strong negative influence. In some cases they first lose their optical properties (they get black), later their mechanical properties and finally break. However, this problem can be minimized if we use Revlam Agro.



SIDE BANDS



Side band with Revlam Agro

***ENTRANCE HALLS:** Though they occupy a small surface of the greenhouse, they are still very important. Thanks to the entrance halls also known as double doors it is possible to avoid the direct access of people to the area and also protect the place from pathogenic agents which are present in the air. Entrance Halls are installed inside the greenhouse and in all the entrance doors and their surface is approximately 9-10 m².

ENTRANCE HALLS



Entrance Hall (double entrance door) with Revlam Agro

NEW DEVELOPMENTS.

In Sotrafa we keep a strong commitment with innovation working hard to expand projects, investigate new products and applications, Together with the farmers, centres collaborators, universities and our own experience we work on new challenges on an annual basis.

One of these challenges is: "Improvement of the covers for greenhouses". The main objectives are: provide a better protection of plastics in vulnerable areas, optimise the attachments which fasten the material to the structure of the greenhouse, avoid premature deteriorations in the contact areas, but without damaging good development of the crops.

CONCLUSIONS.

A new season of reparation and construction of new greenhouses is coming soon. In Sotrafa we put all our products at farmers' disposal highlighting the aspects mentioned above:

1. Agriculture in Almeria is a highly efficient model.
2. Sotrafa has participated in this model from the beginning by offering solutions and products to the farmer.
3. One of the priorities the Company has always had is to offer innovating products to improve agricultural productions.
4. With Revlam range we have developed "definitive gutter".
5. We also offer a considerable improvement in coatings for windows, side bands, entrance halls,
6. We have products which have been produced with the latest technological advances, with higher useful life expectancy than at present but respecting the weather conditions that should exist inside a greenhouse.
7. We carry on with our innovation commitment putting at your disposition a wide catalogue of plastics for agriculture and waterproofing and suggesting new projects that could improve current products; collaborating with our clients so that agriculture goes on being efficient....

In conclusion, a farmer who needs it would receive technical assistance from Sotrafa staff. To do this, you can get in touch with us by coming to our company or visiting the website www.sotrafa.com. Besides, it is also possible to speak to a reliable builder or your usual distributor.