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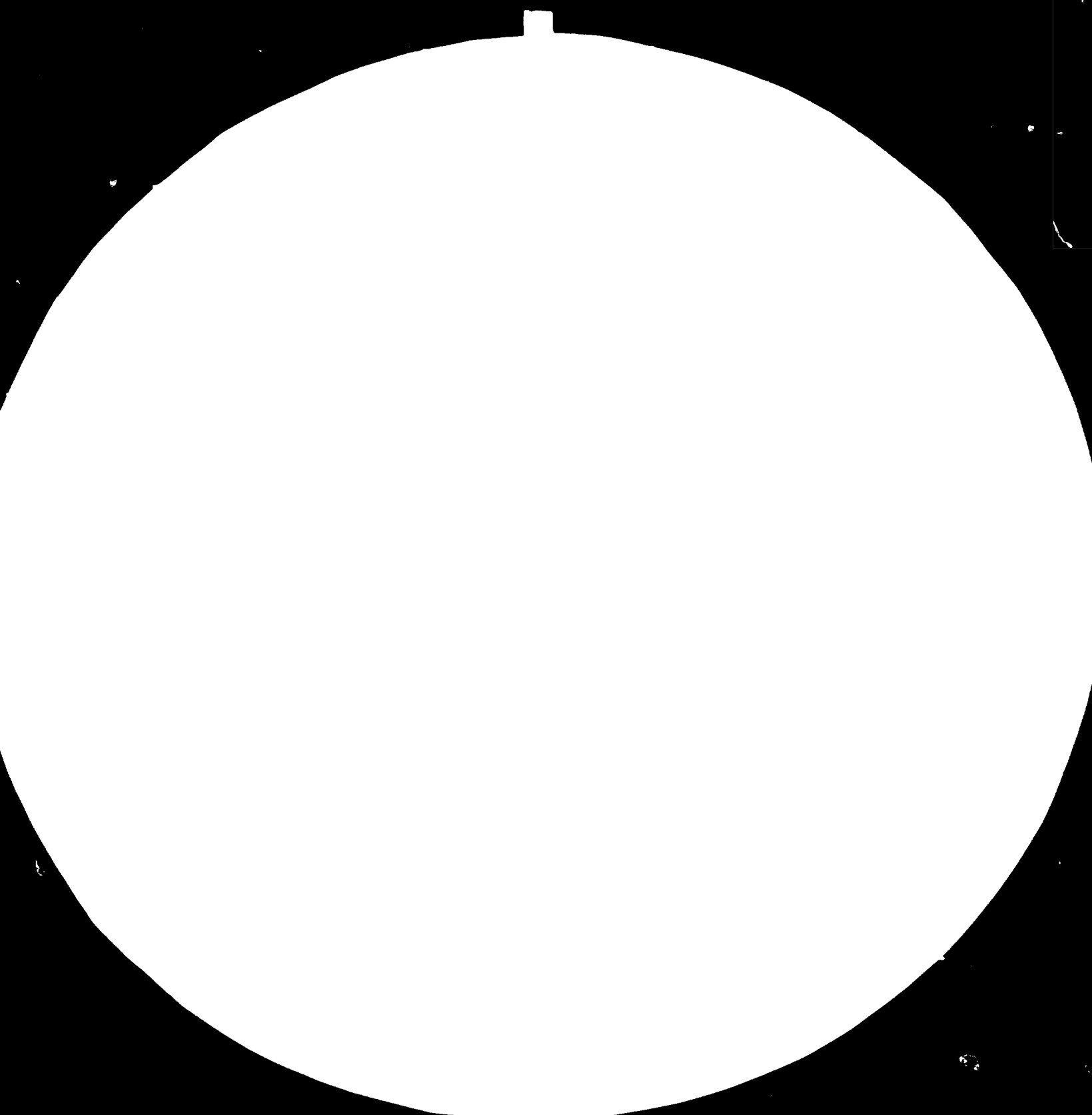

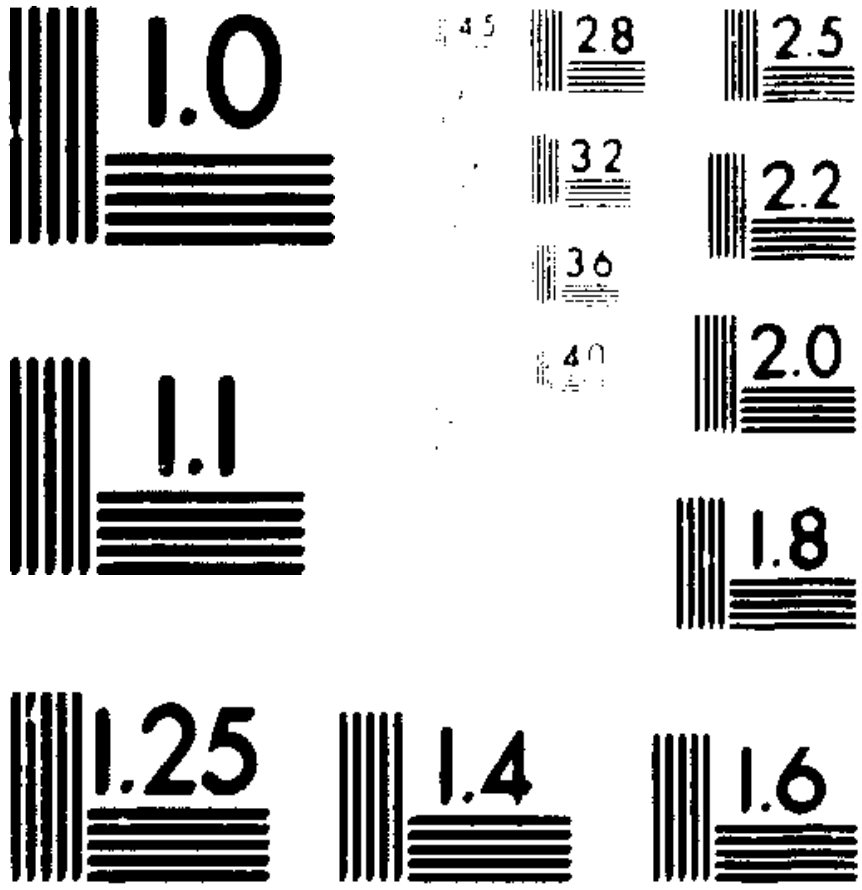

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UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANISATION

1984

FINAL REPORT

DP/EGY/81/029/11-51

Egypt.

Plastics Development Centre
for Agricultural Purposes.
(Mission in October 1984)

by

Henry R. SPICE

3158

T H E S Y M P O S I U M

The primary purpose of the mission was to attend the "African Decade" Symposium on Plastics in Agriculture.

Since senior UNDP personnel attended the conference it is not proposed to report on it. The following comments, which are mainly critical, should be expressed, particularly if the proposed International Conference on Plastics in Agriculture takes place in Alexandria next year.

i) Timekeeping was generally bad, and every session overran its allotted time, reducing the period available for discussion.

ii) Projection facilities needed improvement. Valuable platform time was wasted in correcting inverted slides and adjusting the projector. The only slide presentations which went smoothly were those where the speaker had personally checked slides into the cassette. Only one cassette was available, causing further delay if two succeeding speakers wanted to use slides.

iii) Selection of subjects for papers covered a suitably wide field. Mr. J.C. Garnaud's proposed paper on plastic mulching was sorrely missed and no other speaker gave an adequate review of this application which is likely to be of great importance in Africa in the next few years.

One or two papers were inappropriate for the audience, the most glaring example being a lengthy and highly scientific paper by an erudite professor which could only have been understood by graduates in organic chemistry.

iv) Simultaneous translation facilities varied from very good to very bad. Some headsets were considerably better than others (batteries at fault?). Some announcements were given before people had time to adjust their sets and tune in to the correct channel. To a certain extent the Chairmen were at fault here - perhaps they should have been given clearer instructions.

M I S C E L L A N E O U S I T E M S O F I N T E R E S T

i) At the request of Prof. Dr. Farauk El-Aidy supplier (1000 of each) of two kinds of parasitic insects used widely in the United States and Europe were taken to Egypt for Kafr El-Sheik University (a branch of the large TANTA University).

The predators were Encursia formosa - a small chalcid wasp which predates on White Fly (a serious pest, increasing in inportance in many countries) and Phytoselin - a minute red spider which eats the plant-sucking red spider mites.

ii) Dr. El-Aidy has been working with agriculture and plastics since he earned his doctorate in Budapest in around 1972. He acts as a consultant to the PDC project. He has developed very simple, low-cost greenhouse structures which have given satisfactory service for the past 10 years. It has been strongly recommended that at least one of the greenhouse structures should be erected on the PDC farms.

iii) At a meeting with most of the agricultural engineers on 5 November 1984, at PDC, several items relevant to the future work of the PDC Experiment and Farm were discussed. Brief notes on this Meeting are attached.

iv) It was intended to travel to Vienna on 5 November in order to be de-briefed on 6 November. On 4th November the first opportunity to visit a travel agent, it was established that the only possible way of getting to Vienna on the 5th November was to be at Cairo Airport at 7.0 a. , to fly to Rome at 9.0 a.m. for an onward flight. Transport from Alexandria to Cairo to arrive at such an early hour was not available, so an extra day had to be spent at PDC.

v) A written paper, corresponding to the slide presentation, was prepared for publication in the Symposium proceedings.

H.R. SPICE

Ramada Hotel, 5 November 84

ANNEX

NOTES ON MEETING OF AGRICULTURAL ENGINEERS AT PDC
ON 5 NOVEMBER 1984

(1) H.R. Spice expressed disappointment on quality of crops growing in tunnels at PDC farm. It was pointed out that the highest value of crops was from January onwards, and seedlings had already been sown to crop in this season.

(2) H.R. Spice complained about the lack of paint protection applied to the tunnel greenhouse structures at the "hot-spots" (Places where the film is stretched over the supporting hoops)

(3) Henry Spice complained about the 2 leaks in the above-ground reservoir. These should have been repaired before the visit of the participants of the conference.

(4) It was somewhat disappointing that the "perforated lay-flat taking" system of irrigation was not demonstrated in operation in a tunnel greenhouse.

(5) If many visitors are expected at the experimental farm great attention should be paid to the semi-permanent labelling of each application on experiment. Details should include such items as i) Thickness, type of plastic used,
ii) purpose of trial or demonstration
iii) Time of erection or start of trial
iv) Results to date, etc. etc.

(6) It was suggested that at least one tunnel greenhouse, the hoops of which are made from 1.9 cm diameter solid steel rod placed at 1 1/2 metres, as used by Dr. Farouk El-Aidy should be erected at PDC farm. The reason being that this simple low-cost structure has been proved to be serviceable over a ten year period.

(7) The subject of wind breakers was discussed in detail, and proposed plans made for a demonstration unit. Al Sherif Plastics Company should be prepared to provide free samples of "Netlon" for demonstration and trial. Netlon is excellent, but expensive. Less costly materials should also be demonstrated - in particular strips of polyethylene film threaded through plastic netting.

(8) Tentative plans were made for a fairly large (but low-cost) shade area; supporting timber uprights to be made from sawn timber (cassurina?) with 10 cms x 10 cms cross-section. Uprights to be 5 m apart in each direction, the shade to be from 2 - 2.25 m above soil level.

Shading materials initially to consist of:

(1) Netlon
(2) Strips of black polyethylene film threaded through alternate meshes of a synthetic or metal mesh.
(3) Strings to which are tied bunches of old black polyethylene strips - the so-called "clothes-line" method of shading

(9) It was suggested that a short (demonstration) cut-out section of the plastic lined water channel should be demonstrated, since at present visitors could not know that the channel was lined with polyethylene. Eng. Abdel Khelick Solimen said that such a demonstration could easily be provided at the end (i.e. farthest from input) of the present channel.

(10) A discussion took place on the construction of a tunnel using the centre mid-ribs of date palm leaves to form the supporting structure. This would be an effective, very low-cost structure.

(11) It was pointed out that the "Exposure test" trial demonstrated must on no account be covered with glass (as presently).

(12) The possibility of demonstrating water "mulching" (using water in polyethylene tubes) as a heat-conserving method in unheated tunnels was discussed.

Henry Spice
5/11/84