

INTRODUCTION

Water-sensitive paper is a rigid paper with a specially coated, yellow surface which is stained dark blue by aqueous droplets. The paper has been developed for the rapid evaluation of sprays in the field. It is recommended for the determination of swath widths, spray distribution, droplet densities and spray penetration into crops. The spray mix no longer needs the addition of any dyes. The papers are placed into the target area shortly before spraying. Following exposure to the spray, the water-sensitive papers will show stains from the aqueous droplets. The papers are collected as soon as they have become dry again.

DESCRIPTION OF WATER-SENSITIVE PAPER

The collectors consist of a special paper; its reverse side being water repellent. The upper surface is treated so that it will be stained deep blue by water. The water-sensitive papers are packed together with the drying agent silicagel in sealed alufoil bags.

SUITABILITY OF WATER-SENSITIVE PAPER

The water-sensitive papers can be used for the collection of all kinds of aqueous sprays under conditions of atmospheric humidity up to 80% relative humidity (RH). The resulting stain is contrasty, permanent and ensures detection of droplets larger than 50 microns. In spraying, it should be used only for qualitative assessment of spray distribution and penetration. Exposure of the water-sensitive papers to atmospheric conditions should be kept to a minimum, especially in humid conditions.

WHERE TO USE WATER-SENSITIVE PAPER

A. AERIAL APPLICATION – for detection of swath width and to evaluate the effects of propwash, wing tips vortices and nozzle placement on distribution. Attach the cards onto a horizontal support slightly above the ground or plant canopy.

B. ORCHARD SPRAYERS – for evaluation of spray distribution and penetration throughout the tree. Staple the cards to leaves in upper, center and lower parts of the tree.

C. FIELD SPRAYERS – for evaluation of spray distribution and droplet density along the boom. Staple long collectors (26mm x 500mm) to a board and place it across a section of the boom swath.

D. BACKPACK/HAND-HELD SPRAYERS – for evaluation of spray distribution and droplet density. Place collectors across a single run width.

NOTE: Numbering collectors before placing them on the supports will help in evaluating the exposed cards for irregularities in the spray.

EVALUATION OF WATER-SENSITIVE PAPER

Spray cards can be evaluated by visual estimate or by counting the droplets under a pocket lens.

Visual assessment—A quick glance can reveal areas of over- and under-application, clogged or defective nozzles and nozzle dripping. For routine checking of sprays you might also prepare standard cards by selecting the spray cards with known droplet densities from previous spray applications.

STORAGE AND HANDLING

Water-sensitive collectors must be stored before and after spray exposure under dry conditions in airtight boxes or bags.

Gloves should be used (polyethylene or rubber) for handling the papers to avoid staining and contaminating the water-sensitive papers. The collector support (natural or artificial) must be dry.

LIMITATION OF WATER-SENSITIVE PAPER

In high volume applications the water-sensitive paper cannot be used for droplet evaluation, only for rough visual estimation of distribution and penetration.

It cannot be used under very humid conditions. While the paper turns blue at an RH of 80% the stains produced by water droplets still show sufficient contrast to allow visual detection beyond this limit.

It should not be used on humid or wet supports, e.g. early morning dew.

Droplets of less than 50 microns normally are not recorded.

Water and oil sensitive paper sold by Spraying Systems Co. is manufactured by Syngenta Crop Protection AG.

SSCO PART NO.	DESCRIPTION	PAPER SIZE	QTY. PER PACK
20301-1N	WATER SENSITIVE PAPER	3" X 1" (76mm X 26mm)	50 CARDS
20301-2N	WATER SENSITIVE PAPER	3" X 2" (76mm X 52mm)	50 CARDS
20301-3N	WATER SENSITIVE PAPER	20" X 1" (50cm X 26mm)	25 STRIPS

DESCRIPTION:

**WATER SENSITIVE
SPRAY CHECK PAPER**



Spraying Systems Co.[®]

Spray Nozzles and Accessories
P.O. Box 7900 - Wheaton, IL 60189-7900

Rev. No. 1

Ref.

Data Sheet No.

20301

SHEET OF