

3 ✓

IRRIGATION



D2.3
H7
037237

BULLETIN No. 138 OF THE MINISTRY
OF AGRICULTURE AND FISHERIES
PUBLISHED BY HIS MAJESTY'S
STATIONERY OFFICE. PRICE 1s. 6d. NET

ADVERTISEMENT

MACHINERY AND TOOLS
FOR THE
BORING
AND
MAINTENANCE
OF
WATER WELLS



TYPE 600P PORTABLE DRILLING RIG

**ENGLISH DRILLING EQUIPMENT
CO., LTD.**

**BILBAO HOUSE, 36/38 NEW BROAD STREET
LONDON, E.C.2**

Telephones: London Wall 1991, 1992.

Telegrams: Bullwheel, Ave. London.

Trinidad Office:

P.O. Box 27, San Fernando, Trinidad. B.W.I.

Telephone: San Fernando 819.

South African Agents:

Vickers & Metropolitan Carriage (S.A.) Ltd., P.O. Box 1137, Johannesburg, S.A.
Telephone: 33-2626/7. Telegrams & Cables: Vickersaf.

MINISTRY OF AGRICULTURE AND FISHERIES

BULLETIN

No. 138

IRRIGATION

WITH NOTES ON CROPS
TO WHICH IT IS APPLICABLE



LONDON : HIS MAJESTY'S STATIONERY OFFICE

1947

CONTENTS

	<i>Page</i>
INTRODUCTION	I
CHAPTER I. RAINFALL, WATER SUPPLIES, WELLS AND PUMPS	2
<i>Rainfall in the British Isles (Fluctuations—Rainfall in south-east England)—Water Supplies (River Water—Companies' Water—Well Water—Regulations concerning New Borings—Geological Formations)—Wells (Shallow or Dug Wells—Deep Wells or Boreholes—Artesian Wells—Abyssinian Driven Tube Wells—Capacity and Yield of Wells)—Temperature of Water—Hardness of Water—Pumping Systems (Centrifugal Pumps—Piston Pumps—Air-lift—Capacity of Pump)—Power Supply for Pumping (Electric Motors—Internal Combustion Engines—Windmills—Rules in Pump Management)—Aeration of Water (Addition of Chemicals to Water)—Pressure of Water (Calculation of Head—Static Suction Head—Static Pressure Head—Friction Head—Pressure Head)—Calculation of Horse-power.</i>	
CHAPTER II. SPRAY IRRIGATION	18
<i>Spray-line Systems (The Mains—The Spray Lines—Oscillators)—Typical Plants (for 80 acre Vegetable Farm—for a Smaller Farm)—Circular Spray Systems.</i>	
CHAPTER III. SOILS AND CROPS	26
<i>Suitable Soils and Their Preparation (Loss of Soil Water—Soil Moisture Meters)—Crops suitable for Irrigation—Irrigation and Soil Treatment for Vegetable Crops—Irrigation of Fruit Crops.</i>	
CHAPTER IV. OTHER FORMS OF IRRIGATION	31
<i>Surface Irrigation (by Flooding—by Furrows)—Irrigation in Glasshouses—Subsoil Irrigation (Soilless Cultivation).</i>	
CHAPTER V. DESIGN OF SPRAY IRRIGATION PLANTS	35

The Ministry does not accept responsibility for any of the private trade advertisements included in this publication