

Table of Contents

Unit	Title	Page
1.	An Introduction to Agricultural Engineering	1
2.	Time Management in Engineering Design	13
3.	Types of Tractors	25
4.	Ignition Circuits in Spark-Ignited Engines	36
5.	Weight Transfer and Traction	48
6.	Hydraulic Systems and Hitches	60
7.	Tractor Safety	72
8.	Tractors of the Future	86
9.	Definitions for Agricultural Tillage Implements	98
10.	Power Requirements for PTO-Driven Tillage Tools	112
11.	Crop Planting	126
12.	Methods of Controlling Weeds	142
13.	Pumps for Sprayers	156
14.	Cutting of Biological Materials	170
15.	Threshing: Mechanisms and Principles	184
16.	Crop Handling Equipment: Pneumatic Conveyors	201
17.	Timeliness Consideration for Owing Machinery	215
18.	Criteria for Selection of Materials in Machine Design	228
	References	238