

# Windrush Willow

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## WILLOW FOR BIOMASS, BIO ENGINEERING & FUEL

### Introduction

At Windrush Willow we grow 105 varieties of willow but by far the most vigorous and useful for Biomass, Bioengineering and Fuel is Salix Viminalis.

**Biomass** is the production of short rotation coppice (SRC). Fast growing willows such as Viminalis are cropped every 3 - 5 years, dried and chipped into wood chips for fuelling specially built power stations and for smaller scale combined heat and power units.

**Bioengineering** the production of willow for use in soil stabilisation projects using techniques such as Faggoting and Spiling or for Waste Water Treatment and industrial land reclamation. Cropping interval varies from annually to 5 years depending on application

**Fuel Wood** cropped every 3 to 5 years fast growing willows will produce logs several inches in diameter for wood or multi fuel burners.

### Grant Availability

Grants are available from the Forestry Authority (FA) for establishing SRC, the establishment grant is £600 / hectare. In some cases the site may still qualify for additional supplements and set aside payments – a woodland grant pack and further advice should be sort from your local FA office.

### Planting

The easiest way to propagate the plant is to use a 9" stem cutting (Slip) which is taken from the original plant when dormant (1<sup>st</sup> December to 31<sup>st</sup> March). Longer tip cuttings can also be used where a single stem is desired. Cuttings are normally despatched in labelled plastic bags and should be planted immediately, 8" deep and with the ^ shaped buds pointing upwards. If this is not possible store for up to 2 months in a refrigerator at -1degC (retain in plastic bags to avoid desiccation). Cuttings vary from 5 to 25mm in diameter.

### Propagating Willow % Success Rate

Key

	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Best Time
Unrooted Slip into ground	85	98	98	98	98	90	80	30	N/A	N/A	N/A	N/A	OK

**Setts** (1meter stem cuttings) are also available, these will produce more vigorous growth in the first year and will more readily withstand adverse conditions such as weed competition and drought, they can also be protected by rabbit spirals and subsequently polarded above rabbit grazing height.

The ground into which the willow is to be planted should be vegetation free, a hole is made 10% deeper than the cutting is to be planted and 10% wider than the stem diameter at the butt end. With a 9" Slip, plant so that 8" is under ground, with longer stem cuttings and setts plant to a depth of 12", the inclusion of organic matter into the soil is always a benefit.

Spacing should be 1meter between rows and 1meter between plants giving 10,000 willow stools to a hectare. Expected yields are 20 to 30 tonnes of fresh cut material / year (10 to 15 tonnes dried material). Growth will be between 6 to 12ft / year with multiple rods / stool.

Most willows are pretty tolerant of soil and wind conditions however they do best on heavier soils or where the water table is high. Firm the soil around the cutting very well to exclude air pockets.

**Weed control for the first 2 to 3 seasons is the most critical factor in the success of the plantation.** This is best achieved by mechanical means such as a wheeled hoe or Rotovator. Deer must also be controlled with electric fencing.

The financial success of your willow plantation will depend on having good local markets for the product – the transportation of chipped willow does not make environmental or economic sense.

For further information or to order please contact us further information can be downloaded free from our web site at [www.windrushwillow.com](http://www.windrushwillow.com)

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## **ORDER FORM FOR SUPER WILLOW CUTTINGS SUITABLE FOR BIOMASS, BIO ENGINEERING & FUEL**

Please complete this order form and send it to the above address enclosing your cheque for the full amount made payable to Windrush Willow. On receipt of your order we will acknowledge it. We will bank the cheque when we despatch the order and will send you a VAT receipt with the order.

Orders are accepted at any time and placed in a queue and are despatched on a first come first served basis. Despatch will start after leaf fall (approximately 1<sup>st</sup> December and will end when we run out of willow or before bud break (approximately 1<sup>st</sup> March).

If your order arrives before you are ready to plant, store the cuttings in their plastic bags in the fridge for up to 2 months, (but not after 1<sup>st</sup> April).

### **Price each (including VAT and Carriage UK mainland only)**

<b>Quantity</b>	<b>Slips (9" Cuttings)</b>	<b>Setts (1 Meter Cuttings)</b>
1 to 9	£0.80	£2.40
10 to 49	£0.75	£2.25
50 to 99	£0.60	£1.80
100 to 249	£0.55	£1.10
250 to 499	£0.50	£1.00
500 to 999	£0.40	£0.80
1000+	£0.30	£0.60

### **Delivery Address**

Your Name \_\_\_\_\_

Your Address \_\_\_\_\_

Postcode \_\_\_\_\_ Telephone No \_\_\_\_\_ e-mail \_\_\_\_\_

### **Invoice address if different to above**

Your Name \_\_\_\_\_

Your Address \_\_\_\_\_

Postcode \_\_\_\_\_ Telephone No \_\_\_\_\_ e-mail \_\_\_\_\_

Please send me \_\_\_\_\_ Super Willow Slips (9" Cuttings) at £ \_\_\_\_\_ each

Please send me \_\_\_\_\_ Super Willow Setts (1 Meter Cuttings) at £ \_\_\_\_\_ each

**I enclose a cheque made payable to Windrush Willow for £ \_\_\_\_\_ Total**