

# Modelling Cane Railways

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Sugar Cane  
Using Wire  
Armatures

CaneSIG: <http://www.zelmeroz.com/canesig>

## Sugar Cane using Wire Armatures by Jack Luyt



Mature cane during the cutting season near Fairymead Mill, c 2003, showing the height of this variety and the range of colours in the cane stalks and leaves.

### Introduction

Jack Luyt has modelled an Indonesia style sugar mill in HOe. Noticing from the internet discussion lists that hobbyists have had trouble making model sugar cane, he offered to share his technique for creating reasonable looking sugar cane that would be good for many scales.

### Background

In 2010 I started a small HOe scale sugar mill layout. Having seen some YouTube videos I decided that it had to have an Indonesian flavour.

The layout is small, D shaped, roughly 117" by 75", more or less portable, and operated with two Liliput narrow gauge steam locomotives that looked suitable to do the job. I also use the Lenz DCC system because I like slow running trains without stalling. For this reason I installed a power storage unit inside the loco that helps the little machine keep running over less than perfect track.

Everything except the loco has had to be made, including track, switches, structures, cane buggies and scenery. That's one of the reasons why at my age I have to keep it small and, as can be seen from the photos on the last page, it's a 'work in progress'.

I built the track in such away as to reflect the state of track typical of narrow gauge lines, ie less than perfect but my biggest concern was how to model sugar cane.

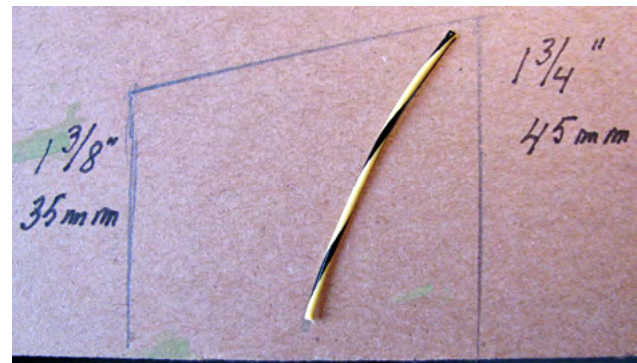
Googling the Internet I came up on an excellent article by Don Fraser who uses Yarra grass (**Handbook 16: Modelling Sugar Cane Part 2**). My problem was I could not find a scientific name for this plant, even after contacting Environment Canada, and exploring my surroundings I could not find anything suitable.

I then came upon the idea of using electrical hook-up wire. The importance to me is it does not have to be a model but rather an impression. After creating some 50 plants using #28-7/32 hook-up wire, I was surprised by the ease of making those, and disappointed that those 50 plants only covered about 1 square inch.

I hoped 1000 plants would be sufficient, but now it has to be 10,000. However, I found that one stalk takes roughly 3 minutes to make, what seems reasonable compared to some kit-based corn stalks.

### Modelling the Cane

Depending on the variety, mature cane can easily grow as much as 5 metres (16') tall, so start by deciding on the height of cane you want to portray. Then draw lines on scrap cardboard to use as a guide for cutting the wire.



Jack's cutting guide for HO with cane stalks ranging from roughly 9 to 12 feet tall.

Grip one end of the wire with flat nosed pliers and strip the insulation up to the flat nosed pliers (see image of stripped wire above). The small unstripped



part will be the base for anchoring the stalk in the florist foam.

#### Materials and tools

#28-7/32 hook-up wire for HO scale

Aleene's Clear Gel Tacky Glue or other thick glue

Various colours of crafters' acrylic paints (water-based paint available at craft or dollar stores)

Optional: economy hair spray, Tamiya XF-26 acrylic paint

Block of florist foam, available at bargain stores, florist or hobby shops

Wire cutters

Wire stripper

Small flat nose pliers

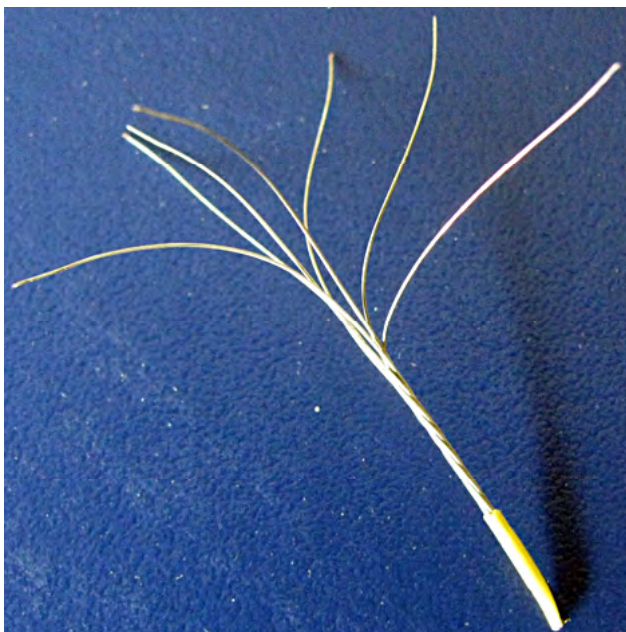
Tweezers

Small paint brushes

Cardboard or paper to mark lengths of wire

Editor's note: Aleene's Clear Gel Tacky Glue is a craft glue with a thick consistency and water clean-up. Because it's clear you can easily see where it is being applied.

Before you go ahead, now would be a good time to slice up the florist foam block in say 3/8" thick slices so you have something to hold the stalks in.



Wire twisted to create stalk and 'leaves', leaves are separated for ease of painting.

Twist the wire approximately as shown in the photo above. Next apply Aleene's tacky glue to the trunk and, optionally, to what would be leaves. Do not dilute the glue because the heavy glue obscures the twisted wire and gives some thickness to trunk and leaves.

You could leave the leaves without glue and instead use hair spray to coat the leaves. The reason for using either glue or hair spray is that water-based acrylic paint doesn't adhere very well to bare wire.



Wire armature with glue on stalk and air brushed leaves.

At this point I normally air brush the leaves with Tamiya paint (see image above) so if I miss some part with hand finishing it won't be noticed.

When dry paint the trunk with undiluted acrylic crafter's paint using a variety of light and dark tan, medium grey and brown, comparing this with images of real sugar cane.



Finished cane stalk: lower stalk covered with glue and painted. leaves sprayed with hair spray and painted, leaves formed into realistic shape.

Now it's time to form the leaves into a more realistic shape as shown above and paint the leaves using images of actual cane as a guide (see photos next page).

#### Acknowledgements

Model photos by Jack Luyt, Queensland cane photos by Lynn Zelmer. Jack's text was edited prior to publication.

The image collection on the CaneSIG web site has an extensive collection of sugar cane images: [www.zelmeroz.com/canesig](http://www.zelmeroz.com/canesig).





Mature sugar cane near Mackay during the 1990 crushing season showing the range of colours in stalks and leaves.



Jack's finished HO scale sugar cane set in florist's foam prior to placement on the layout.

### Jack's Indonesian Mill Layout



An operator's view of Jack's layout with rice paddies to the left and mill buildings, loco shed, etc., to the right.

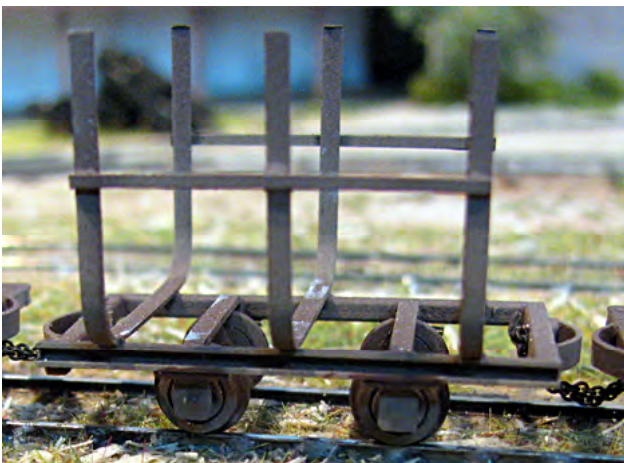


Ground level view of the loco shed, empty truck yard and additional mill buildings.





Another view of the loco shed, mill yard and buildings.



Wholestick truck for longitudinal loading with chains used for coupling,



Side view of the loco shed and wholestick cane yard; note the ventilated roof typical of tropical loco sheds.



Overhead crane for unloading cane.



One of the Liliput 0-6-0T locos with Indonesian style tender for carrying bagasse bales (cane waste used to fuel loco).