



FERTILE GROUND FOR LVL CONSTRUCTION

ELF FARM SUPPLIES COMPOSTING

Elf Farm in Mulgrave NSW is a mushroom substrate plant. A factory for growing the soil that mushrooms grow in. Rob Tolson of Elf Farm Supplies has been in the business for 45 years so if anyone knows about mushroom compost it's Rob. That's why when Elf Farm embarked on an equipment upgrade Rob was keen to consider new options for construction. Previously sheds were built from steel and Rob was faced with problems of corrosion and high maintenance costs.



PROJECT SPECIFICATIONS:

PRODUCTS:
hySPAN®, hyJOIST®

ENGINEER:
Timberbuilt



For fertiliser production a large factory space is required and although steel construction is readily available, corrosion was inevitable due to the conditions inside the factory. "Steel has a short life span," says Rob, "because of the high ammonia conditions the steel corrodes. We were putting steel roofs on every five years and the whole structure is gone within twenty (years)."

Tolson had seen timber used overseas in this same environment. In fact, timber once was the material of choice for purlins and girts, if not the main trusses and Tolson felt it was the way to go, but with the advantages of modern engineered timber rather than the old hardwood.

In fact, Rob had done his homework and knew that Timberbuilt specialised in large span LVL structures and had previously designed, prefabricated and supplied an LVL portal frame system for another mushroom composting facility near Mildura in Victoria. This building, clear spanning 30 metres and completed some years ago, is known to be performing well in the difficult environment.

Engineer, Cameron Rodger, explains that he has designed many factory and warehouse buildings using LVL instead of steel, because of the corrosion hazard for steel presented by certain industrial processes.

"The choice of LVL and other engineered wood products such as plywood, for buildings with highly corrosive conditions such as fertiliser handling, is obvious because these wood based materials are largely unaffected by the acidic (and

alkaline) conditions," he says, "hySPAN and hyJOIST from the Futurebuild® LVL range are perfect for these kind of large span structural applications because of their uniformity, structural reliability, high strength and stiffness and the availability of sections up to 1200mm wide and the very long lengths required."

The Elf Farm building is 27.9 metres wide, with a seven degree pitch which means the rafters needed to be more than 14 metres long.

To Tolson's surprise, the fully prefabricated LVL structure went up as quickly as steel and his builders, used to erecting factories from steel, had no difficulties adapting to the assembly of the LVL system.



Tolson predicts the new hySPAN shed will have a far longer life span without the ongoing maintenance problems of steel. He has clearly been won over as Elf Farm is now building a second larger factory, 30 x 114 metres, using another hySPAN portal frame system.

