

These trusses will handle roof loads for low-human-occupancy farm buildings under "dry," service conditions. Truss connections and member sizes are based on 18.5 mm (3/4 in.) Douglas fir plywood, 76 mm (3 in.) spiral concrete nails and No. 2 S-P-F Canadian lumber.

Do not use the trusses for high-human-occupancy buildings that many people may occupy over extended periods, such as auction barns, show arenas and riding stables with bleachers.

Select your truss plan to suit the building, taking into account the truss spacing, the roof dead load and the roof snow load.

The *Supplement to the National Building Code of Canada* gives ground-snow loads for various communities in Canada. Roof-snow loads are determined from these loads, using rules contained in the supplement. Note that extra-heavy snow loads, caused by drifting and sliding from the upper roof, frequently occur in roof valleys and on roofs that connect to higher roofs or walls. Put extra roof trusses and roof supports under stepped roofs and roof valleys.

Consult a qualified engineer to determine the total roof design load for your particular building.

## COMPLETE INSTRUCTIONS

The Canada Plan Service, a Canadian federal/provincial organization, promotes the transfer of technology through factsheets, design aids and construction drawings that show how to plan and build modern farm structures and equipment for Canadian agriculture.

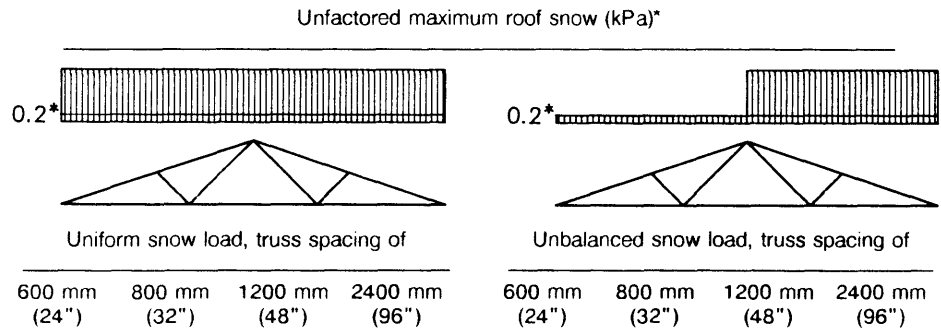
For more information, contact your local provincial agricultural engineer or extension advisor.

Note that the gable truss list gives maximum roof-snow loads for both the "unbalanced" and "balanced" snow load conditions. This anticipates a change proposed for the 1990 *Canadian Farm Building Code*, based on the fact that wind may blow snow from the windward to the leeward slope. The National Building Code handles this by an "accumulation factor",  $C_a$  which for 4/12 gable roofs is 1.17. This code change won't necessarily require stronger trusses because it can be offset by a reduction in the slope factor,  $C_s$ , if the roof is slippery (steel, etc.) and if snow is free to slide off (no valleys, chimneys, silos or other obstructions).

These truss designs assume that the top edge of the top chord is held in a straight line by lateral braces (roof purlins) spaced at not over 600 mm, or by continuous sheathing such as plywood.

Fabricate and install trusses with great care to avoid damaging them or overstressing the wooden members and the connections. See leaflets M9101, *Building Your Own Roof Trusses*, and M9102, *Truss Erecting and Bracing*; these detail permanent truss bracing as well as the temporary bracing you need while putting the trusses up.

### CPS GABLE ROOF TRUSSES, 1986 SERIES

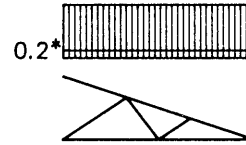


M-9134 9.6 m (32') Light duty	2.6	1.9	1.2		3.1	2.3	1.4	
M-9135 9.6 m (32') Medium duty	3.8	2.8	1.8		4.4	3.3	2.1	
M-9136 9.6 m (32') Heavy duty	5.0	3.7	2.4	1.0	6.1	4.5	2.9	1.4
M-9142 10.8 m (36') Light duty	3.3	2.4	1.5		3.9	2.8	1.8	
M-9143 10.8 m (36') Medium duty	4.3	3.2	2.1		5.1	3.8	2.5	
M-9150 12.0 m (40') Light duty	2.8	2.1	1.3		3.4	2.5	1.6	
M-9151 12.0 m (40') Medium duty	3.8	2.8	1.8		4.5	3.3	2.2	
M-9154 12.6 m (42') Light duty	2.5	1.8	1.2		3.1	2.3	1.4	
M-9155 12.6 m (42') Medium duty	3.5	2.6	1.7		4.3	3.2	2.0	
M-9170 15.0 m (50') Light duty	2.8	2.0	1.3		3.4	2.5	1.6	
M-9190 18.0 m (60') Light duty	2.0	1.5	0.9		2.2	1.6	1.0	

\* Assumed dead load is 0.2 kPa over the entire roof, in addition to loads listed in this table.

# CPS SINGLE SLOPE ROOF TRUSSES, 1988 SERIES

Unfactored maximum roof snow (kPa)"



Uniform snow load, truss spacing of

		600 mm (24")	800 mm (32")	1200 mm (48")	2400 mm (96")
M-9056	6.0 m (20') Light duty	4.0	2.9	1.9	
M-9057	6.0 m (20') Medium duty	5.7	4.2	2.7	1.2
M-9058	6.0 m (20') Heavy duty	6.9	5.1	3.3	1.4
M-9064	7.2 m (24') Light duty	2.7	2.0	1.3	
M-9065	7.2 m (24') Medium duty	4.3	3.1	2.0	
M-9066	7.2 m (24') Heavy duty	5.8	4.3	2.8	1.2
M-9076	9.0 m (30') Light duty	3.0	2.2	1.4	
M-9077	9.0 m (30') Medium duty	4.5	3.3	2.1	
M-9078	9.0 m (30') Heavy duty	4.9	3.6	2.3	1.0
M-9087	10.8 m (36') Light duty	2.1	1.6	1.0	
M-9088	10.8 m (36') Medium duty	3.3	2.4	1.5	
M-9089	10.8 m (36') Heavy duty	4.2	3.1	2.0	
M-9098	12.0 m (40') Light duty	2.8	2.0	1.3	
M-9099	12.0 m (40') Medium duty	3.7	2.7	1.7	

\* Assumed dead load is 0.2 kPa over the entire roof, in addition to loads listed in this table.