

# Hold it Down!

**Fred Whitford, Purdue Pesticide Programs, et al.**

The collective WLL for all tie-downs must equal at least half the weight of the secured cargo.

Generally, the WLL is imprinted on a tag sewn near one end of the assembled web strap.

## - WLL -

Width of Unmarked Web      Working Load Limit

1 inch	1000 pounds
1 3/4 inch	1750 pounds
2 inches	2000 pounds
3 inches	3000 pounds
4 inches	4000 pounds

## ~ Chains ~

Chain Link Diameter (inches)	Working Load Limit (pounds)				
	Unmarked Grade 30	Grade 40	Grade 70	Grade 80	Grade 100
1/4	1,300	2,600	3,150	3,500	4,300
5/16	1,900	3,900	4,700	4,500	5,700
3/8	2,650	5,400	6,600	7,100	8,800
7/16	3,700	7,200	8,750	.....not available.....	
1/2	4,500	9,200	11,300	12,000	15,000
5/8	6,900	13,000	15,800	18,100	22,600

Purdue University is an equal access/equal opportunity university.

The information provided herein is supplied with the understanding that no discrimination is intended and no endorsement by the Purdue University Cooperative Extension Service is implied.

**EXPERT**  
REVIEWED

1-800-EXT-INFO

<http://www.ces.purdue.edu/new>

New 10/09

# HOW MANY TIE-DOWNS

do I need for articles not blocked or positioned to prevent movement?

- Use 1 tie-down for articles 5 feet long or less and 1100 pounds or less.
- Use 2 tie-downs for articles 5 feet long or less and more than 1100 pounds.
- Use 2 tie-downs for articles longer than 5 feet but less than or equal to 10 feet.
- Use 2 tie-downs for articles longer than 10 feet, and use 1 additional tie-down for each additional 10 feet (or fraction thereof) beyond the first 10 feet of length.

## OUT-OF-SERVICE?

How do I know if a damaged web strap should be taken out of service? **The decision is based on two criteria:**

### Width of Webbing

1 <sup>3</sup>/<sub>4</sub> inch

2 inches

3 inches

4 inches

### Size of Damage

Larger than <sup>3</sup>/<sub>8</sub> inch

Larger than <sup>3</sup>/<sub>8</sub> inch

Larger than <sup>5</sup>/<sub>8</sub> inch

Larger than <sup>3</sup>/<sub>4</sub> inch

