

Macpherson Donald G
 Form 4
 February 17, 2012

FORM 4

**UNITED STATES SECURITIES AND EXCHANGE COMMISSION
 Washington, D.C. 20549**

OMB APPROVAL

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STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP OF SECURITIES

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934, Section 17(a) of the Public Utility Holding Company Act of 1935 or Section 30(h) of the Investment Company Act of 1940

(Print or Type Responses)

1. Name and Address of Reporting Person *
 Macpherson Donald G

(Last) (First) (Middle)
 100 GRAINGER PARKWAY
 (Street)

LAKE FOREST, IL 60045-5201

(City) (State) (Zip)

2. Issuer Name and Ticker or Trading Symbol
 GRAINGER W W INC [GWW]

3. Date of Earliest Transaction (Month/Day/Year)
 02/15/2012

4. If Amendment, Date Original Filed(Month/Day/Year)

5. Relationship of Reporting Person(s) to Issuer

(Check all applicable)

____ Director _____ 10% Owner
 Officer (give title below) _____ Other (specify below)
 Sr. VP, Global Supply Chain

6. Individual or Joint/Group Filing(Check Applicable Line)
 Form filed by One Reporting Person
 Form filed by More than One Reporting Person

Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned

1. Title of Security (Instr. 3)	2. Transaction Date (Month/Day/Year)	2A. Deemed Execution Date, if any (Month/Day/Year)	3. Transaction Code (Instr. 8)	4. Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5)	5. Amount of Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4)	6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	7. Nature of Ownership (Instr. 4)
			Code	V	Amount (A) or (D) Price		
Common Stock	02/15/2012		A		4,720 A \$ 0	28,720	D
Common Stock	02/15/2012		F		1,495 D \$ 209.1	27,225	D

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

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Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned
(e.g., puts, calls, warrants, options, convertible securities)

1. Title of Derivative Security (Instr. 3)	2. Conversion or Exercise Price of Derivative Security	3. Transaction Date (Month/Day/Year)	3A. Deemed Execution Date, if any (Month/Day/Year)	4. Transaction Code (Instr. 8)	5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4, and 5)	6. Date Exercisable and Expiration Date (Month/Day/Year)	7. Title and Amount of Underlying Securities (Instr. 3 and 4)	8. Price or Amount of Securities (Instr. 3 and 4)
Option	\$ 85.82					04/30/2011 04/29/2018	Common Stock	8,000
Option	\$ 81.49					04/29/2012 04/28/2019	Common Stock	30,000
Option	\$ 108.15					04/28/2013 04/27/2020	Common Stock	29,000
Option	\$ 149.02					04/27/2014 04/26/2021	Common Stock	24,876

Reporting Owners

Reporting Owner Name / Address	Relationships			
	Director	10% Owner	Officer	Other
Macpherson Donald G 100 GRAINGER PARKWAY LAKE FOREST, IL 60045-5201			Sr. VP, Global Supply Chain	

Signatures

John L. Howard, as attorney-in-fact 02/16/2012

**Signature of Reporting Person Date

Explanation of Responses:

* If the form is filed by more than one reporting person, see Instruction 4(b)(v).

** Intentional misstatements or omissions of facts constitute Federal Criminal Violations. See 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, see Instruction 6 for procedure.

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