Rial Sergio
Form 3
October 12, 2010

FORM 3

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

OMB APPROVAL

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INITIAL STATEMENT OF 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 *
Â Rial Sergio

(Last) (First) (Middle)

C/O THE MOSAIC COMPANY,Â 3033 CAMPUS DRIVE, SUITE E490

(Street)

PLYMOUTH,Â MNÂ 55441

(City) (State) (Zip)

2. Date of Event Requiring Statement (Month/Day/Year)
10/07/2010

3. Issuer Name **and** Ticker or Trading Symbol
MOSAIC CO [MOS]

4. Relationship of Reporting Person(s) to Issuer

(Check all applicable)

__X__ Director
_____ 10% Owner
_____ Officer (give title below)
_____ Other (specify below)

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

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

Table I - Non-Derivative Securities Beneficially Owned

1.Title of Security (Instr. 4)	2. Amount of Securities Beneficially Owned (Instr. 4)	3. Ownership Form: Direct (D) or Indirect (I) (Instr. 5)	4. Nature of Indirect Beneficial Ownership (Instr. 5)
Common Stock	0	D	Â

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

SEC 1473 (7-02)

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Table II - Derivative Securities Beneficially Owned (*e.g.*, puts, calls, warrants, options, convertible securities)

1. Title of Derivative Security (Instr. 4)	2. Date Exercisable and Expiration Date (Month/Day/Year)	3. Title and Amount of Securities Underlying Derivative Security (Instr. 4)	4. Conversion or Exercise Price of Derivative	5. Ownership Form of Derivative Security:	6. Nature of Indirect Beneficial Ownership (Instr. 5)

Date Exercisable	Expiration Date	Title	Amount or Number of Shares	Security	Direct (D) or Indirect (I) (Instr. 5)

Reporting Owners

Reporting Owner Name / Address	Relationships			
	Director	10% Owner	Officer	Other
Rial Sergio C/O THE MOSAIC COMPANY 3033 CAMPUS DRIVE, SUITE E490 PLYMOUTH,Â MNÂ 55441	Â X	Â	Â	Â

Signatures

/s/ Richard L. Mack, Attorney-in-Fact for Sergio Rial	10/12/2010
**Signature of Reporting Person	Date

Explanation of Responses:

* If the form is filed by more than one reporting person, *see* Instruction 5(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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