Form 3 October 22, 2004 UNITED STATES SECURITIES AND EXCHANGE COMMISSION **OMB APPROVAL** FORM 3 Washington, D.C. 20549 OMB 3235-0104 Number: January 31, **INITIAL STATEMENT OF BENEFICIAL OWNERSHIP OF** Expires: 2005 **SECURITIES** Estimated average burden hours per Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934, response... 0.5 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 2. Date of Event Requiring 3. Issuer Name and Ticker or Trading Symbol Person * Statement MOSAIC CO [MOS] BENTELE RAYMOND F (Month/Day/Year) 10/22/2004 (Last) (First) (Middle) 4. Relationship of Reporting 5. If Amendment, Date Original Person(s) to Issuer Filed(Month/Day/Year) 2320 TODFORTH WAY (Check all applicable) (Street) 6. Individual or Joint/Group Filing(Check Applicable Line) 10% Owner _X_ Director _X_ Form filed by One Reporting Officer Other Person (give title below) (specify below) ST. LOUIS, MOÂ 63131 Form filed by More than One Reporting Person (City) (State) (Zip) Table I - Non-Derivative Securities Beneficially Owned 2. Amount of Securities 4. Nature of Indirect Beneficial 1. Title of Security 3 Beneficially Owned Ownership Ownership (Instr. 4) (Instr. 4) Form: (Instr. 5) Direct (D) or Indirect **(I)** (Instr. 5) 0 D Â Common Stock

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

MOSAIC CO

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

SEC 1473 (7-02)

| 1. Title of Derivative Security (Instr. 4) | | | 3. Title and Amount of Securities Underlying Derivative Security (Instr. 4) | | 4. Conversion or Exercise Price of | 5. Ownership Form of Derivative | 6. Nature of Indirect Beneficial Ownership (Instr. 5) |
|---|---------------------|--------------------|--|------------------------|---|--|---|
| | Date Exercisable | Expiration Date | Title | Amount or Number of | Derivative Security | Security: Direct (D) or Indirect | |

Shares

(I) (Instr. 5)

Reporting Owners

| Reporting Owner Name / Add | ress | Relationships | | | | | |
|---|------------|---------------|---------|-------|--|--|--|
| I O | Director | 10% Owner | Officer | Other | | | |
| BENTELE RAYMOND F 2320 TODFORTH WAY ST. LOUIS, MO 63131 | | Â | Â | Â | | | |
| Signatures | | | | | | | |
| s/Richard L. Mack | 10/22/2004 | | | | | | |
| <pre>**Signature of Reporting Person</pre> | 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. Potential persons who are to respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB number.