

MOSAIC CO  
Form SC 13G/A  
February 13, 2018  
SECURITIES  
AND  
EXCHANGE  
COMMISSION  
Washington,  
D.C. 20549

SCHEDULE  
13G/A

Under the  
Securities  
Exchange Act of  
1934  
(Amendment  
No. 1)\*

The Mosaic  
Company  
(Name of  
Issuer)

Common Stock,  
par value \$0.01  
per share  
(Title of Class  
of Securities)

61945C103  
(CUSIP  
Number)

December 31,  
2017  
(Date of Event  
Which Requires  
Filing of This  
Statement)

Check the  
appropriate box  
to designate the  
rule pursuant to  
which this  
Schedule is  
filed:

“ Rule 13d-1(b)  
“ Rule 13d-1(c)  
“ Rule 13d-1(d)

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Pages)

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\*The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter the disclosures provided in a prior cover page.

The information required in the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

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<b>1</b>	NAME OF REPORTING PERSON
<b>2</b>	Adage Capital Partners, L.P. CHECK THE APPROPRIATE BOX IF A MEMBER (b) " " OF A GROUP
<b>3</b>	SEC USE ONLY CITIZENSHIP OR PLACE OF
<b>4</b>	ORGANIZATION
<b>5</b>	Delaware SOLE VOTING POWER
<b>6</b>	0 SHARED VOTING POWER
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH:	17,799,911 SOLE DISPOSITIVE POWER
<b>7</b>	
<b>8</b>	0 SHARED DISPOSITIVE POWER
<b>9</b>	17,799,911 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON
<b>10</b>	17,799,911 ..

**11** CHECK BOX  
IF THE  
AGGREGATE  
AMOUNT IN  
ROW (9)  
EXCLUDES  
CERTAIN  
SHARES  
PERCENT OF  
CLASS  
REPRESENTED BY  
AMOUNT IN ROW  
(9)

**12** 5.07%  
TYPE OF  
REPORTING  
PERSON

PN

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<b>1</b>	NAME OF REPORTING PERSON
<b>2</b>	Adage Capital Partners GP, L.L.C. CHECK THE APPROPRIATE BOX IF A MEMBER (b) " " OF A GROUP
<b>3</b>	SEC USE ONLY CITIZENSHIP OR PLACE OF
<b>4</b>	ORGANIZATION
<b>5</b>	Delaware SOLE VOTING POWER
<b>6</b>	0 SHARED VOTING POWER
<b>7</b>	17,799,911 SOLE DISPOSITIVE POWER
<b>8</b>	0 SHARED DISPOSITIVE POWER
<b>9</b>	17,799,911 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON

10	17,799,911 CHECK BOX IF THE AGGREGATE AMOUNT IN .. ROW (9) EXCLUDES CERTAIN SHARES PERCENT OF CLASS REPRESENTED BY
11	AMOUNT IN ROW (9)
12	5.07% TYPE OF REPORTING PERSON  OO

NAME OF REPORTING PERSON		SEC USE ONLY	CITIZENSHIP OR PLACE OF ORGANIZATION
	Adage Capital Advisors, L.L.C.		
	CHECK THE APPROPRIATE BOX IF A MEMBER (b) " OF A GROUP		
5	SOLE VOTING POWER		
6	0 SHARED VOTING POWER		
7	17,799,911 SOLE DISPOSITIVE POWER		
8	0 SHARED DISPOSITIVE POWER		
	17,799,911		
AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON			

10	17,799,911 CHECK BOX IF THE AGGREGATE AMOUNT IN .. ROW (9) EXCLUDES CERTAIN SHARES PERCENT OF CLASS REPRESENTED BY
11	AMOUNT IN ROW (9)
12	5.07% TYPE OF REPORTING PERSON  OO





10	CHECK BOX IF THE AGGREGATE AMOUNT IN .. ROW (9) EXCLUDES CERTAIN SHARES PERCENT OF CLASS REPRESENTED BY
11	AMOUNT IN ROW (9)
12	5.07% TYPE OF REPORTING PERSON  IN

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<b>1</b>	NAME OF REPORTING PERSON
	Phillip Gross
<b>2</b>	CHECK THE APPROPRIATE BOX IF A MEMBER (b) " " OF A GROUP
<b>3</b>	SEC USE ONLY CITIZENSHIP OR PLACE OF
<b>4</b>	ORGANIZATION
	United States
<b>5</b>	SOLE VOTING POWER
<b>6</b>	0 SHARED VOTING POWER
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH:	17,799,911
<b>7</b>	SOLE DISPOSITIVE POWER
<b>8</b>	0 SHARED DISPOSITIVE POWER
<b>9</b>	17,799,911 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON
	17,799,911

10	CHECK BOX IF THE AGGREGATE AMOUNT IN .. ROW (9) EXCLUDES CERTAIN SHARES PERCENT OF CLASS REPRESENTED BY
11	AMOUNT IN ROW (9)
12	5.07% TYPE OF REPORTING PERSON  IN

**Item 1(a). NAME OF ISSUER**

The name of the issuer is The Mosaic Company (the "Company").

**Item 1(b). ADDRESS OF ISSUER'S PRINCIPAL EXECUTIVE OFFICES**

The Company's principal executive offices are located at 3033 Campus Drive, Suite E490, Plymouth, Minnesota 55441.

**Item 2(a). NAME OF PERSON FILING**

This statement is filed by:

- (i) Adage Capital Partners, L.P., a Delaware limited partnership ("ACP") with respect to the shares of Common Stock directly owned by it;

- (ii) Adage Capital Partners GP, L.L.C., a limited liability company organized under the laws of the State of Delaware ("ACPGP"), as general partner of ACP with respect to the shares of Common Stock directly owned by ACP;

- (iii) Adage Capital Advisors, L.L.C., a limited liability company organized under the laws of the State of Delaware ("ACA"), as managing member of ACPGP, general partner of ACP, with respect to the shares of Common Stock directly owned by ACP;

- (iv) Robert Atchinson ("Mr. Atchinson"), as managing member of ACA, managing member of ACPGP, general partner of ACP with respect to the shares of Common Stock directly owned by ACP; and

- (v) Phillip Gross ("Mr. Gross"), as managing member of ACA, managing member of ACPGP, general partner of ACP with respect to the shares of Common Stock directly owned by ACP.

The foregoing persons are hereinafter sometimes collectively referred to as the "Reporting Persons." Any disclosures herein with respect to persons other than the Reporting Persons are made on information and belief after making inquiry to the appropriate party.

The filing of this statement should not be construed in and of itself as an admission by any Reporting Person as to beneficial ownership of the securities reported herein.

**Item 2(b). ADDRESS OF PRINCIPAL BUSINESS OFFICE OR, IF NONE, RESIDENCE**

The address of the business office of each of the Reporting Persons is 200 Clarendon Street, 52nd floor, Boston, Massachusetts 02116.

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**Item 2(c). CITIZENSHIP**

ACP is a limited partnership organized under the laws of the State of Delaware. ACPGP and ACA are limited liability companies organized under the laws of the State of Delaware. Messrs. Gross and Atchinson are citizens of the United States.

**Item 2(d). TITLE OF CLASS OF SECURITIES**

Common Stock, par value \$0.01 per share (the "Common Stock").

**Item 2(e). CUSIP NUMBER**

61945C103

**Item 3. IF THIS STATEMENT IS FILED PURSUANT TO Rules 13d-1(b), OR 13d-2(b) OR (c), CHECK WHETHER THE PERSON FILING IS A:**

- (a) Broker or dealer registered under Section 15 of the Act;
- (b) Bank as defined in Section 3(a)(6) of the Act;
- (c) Insurance company as defined in Section 3(a)(19) of the Act;
- (d) Investment company registered under Section 8 of the Investment Company Act of 1940;
- (e) An investment adviser in accordance with Rule 13d-1(b)(1)(ii)(E);  
An employee benefit plan or endowment fund in accordance with Rule 13d-1(b)(1)(ii)(F);
- (f)

- (g) A parent holding company or control person in accordance with Rule 13d-1(b)(1)(ii)(G);  
A savings association as defined in Section 3(b) of the Federal Deposit Insurance Act;
- (h)

- (i) A church plan that is excluded from the definition of an investment company under Section 3(c)(14) of the Investment Company Act;

- (j) A non-U.S. institution in accordance with Rule 13d-1(b)(1)(ii)(J);
- (k) Group, in accordance with Rule 13d-1(b)(1)(ii)(K).

If filing as a non-U.S. institution in accordance with Rule 13d-1(b)(1)(ii)(J), please

specify the type of institution: Not applicable.

**Item 4. OWNERSHIP**

- A. Adage Capital Partners, L.P., Adage Capital Partners GP, L.L.C. and Adage Capital Advisors, L.L.C.
- (a) Amount beneficially owned: 17,799,911  
Percent of class: 5.07%. The percentage set forth in this Schedule 13G/A is calculated based upon the 351,049,649 shares of Common Stock reported to be issued and outstanding as of
  - (b) October 31, 2017 as reflected in the Company's Quarterly Report on Form 10-Q for the quarterly period ended September 30, 2017 filed with the Securities and Exchange Commission on November 3, 2017.
  - (c) (i) Sole power to vote or direct the vote: 0  
(ii) Shared power to vote or direct the vote: 17,799,911  
(iii) Sole power to dispose or direct the disposition: 0  
(iv) Shared power to dispose or direct the disposition of: 17,799,911

ACP has the power to dispose of and the power to vote the shares of Common Stock beneficially owned by it, which power may be exercised by its general partner, ACPGP. ACA, as managing member of ACPGP, directs ACPGP's operations. Neither ACPGP nor ACA directly own any shares of Common Stock. By reason of the provisions of Rule 13d-3 of the Securities Exchange Act of 1934 (the "Act"), ACPGP and ACA may be deemed to beneficially own the shares owned by ACP.

- B. Robert Atchinson and Phillip Gross
- (a) Amount beneficially owned: 17,799,911
  - (b) Percent of class: 5.07%
  - (c) (i) Sole power to vote or direct the vote: 0  
(ii) Shared power to vote or direct the vote: 17,799,911  
(iii) Sole power to dispose or direct the disposition: 0  
(iv) Shared power to dispose or direct the disposition: 17,799,911

Messrs. Atchinson and Gross, as managing members of ACA, have shared power to vote the shares of Common Stock beneficially owned by ACP. Neither Mr. Atchinson nor Mr. Gross directly own any shares of Common Stock. By reason of the provisions of Rule 13d-3 of the Act, each may be deemed to beneficially own the shares beneficially owned by ACP.

**Item 5. OWNERSHIP OF FIVE PERCENT OR LESS OF A CLASS**

Not applicable.



**Item 6. OWNERSHIP OF MORE THAN FIVE PERCENT ON BEHALF OF ANOTHER PERSON**

Not applicable.

**Item 7. IDENTIFICATION AND CLASSIFICATION OF THE SUBSIDIARY WHICH ACQUIRED THE SECURITY BEING REPORTED ON BY THE PARENT HOLDING COMPANY OR CONTROL PERSON**

Not applicable.

**Item 8. IDENTIFICATION AND CLASSIFICATION OF MEMBERS OF THE GROUP**

Not applicable.

**Item 9. NOTICE OF DISSOLUTION OF GROUP**

Not applicable.

**Item 10. CERTIFICATION**

Each of the  
Reporting Persons  
hereby makes the  
following  
certification:

By signing below  
each Reporting  
Person certifies that,  
to the best of his or  
its knowledge and  
belief, the securities  
referred to above  
were not acquired  
and are not held for  
the purpose of or  
with the effect of  
changing or  
influencing the  
control of the issuer  
of the securities and  
were not acquired  
and are not held in  
connection with or as  
a participant in any  
transaction having  
that purpose or  
effect.



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SIGNATURES

After reasonable inquiry and to the best of his or its knowledge and belief, each of the undersigned certifies that the information set forth in this statement is true, complete and correct.

DATE: February 13, 2018

ADAGE CAPITAL PARTNERS, L.P.  
By: Adage Capital Partners GP, L.L.C.,  
its general partner

By: Adage Capital Advisors, L.L.C.,  
its managing member

/s/ Robert Atchinson  
Name: Robert Atchinson  
Title: Managing Member

ADAGE CAPITAL PARTNERS GP, L.L.C.  
By: Adage Capital Advisors, L.L.C.,  
its managing member

/s/ Robert Atchinson  
Name: Robert Atchinson  
Title: Managing Member

ADAGE CAPITAL ADVISORS, L.L.C.

/s/ Robert Atchinson  
Name: Robert Atchinson  
Title: Managing Member

ROBERT ATCHINSON

/s/ Robert Atchinson  
ROBERT ATCHINSON, individually

PHILLIP GROSS

/s/ Phillip Gross  
PHILLIP GROSS, individually