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

FORM 8-K

CURRENT REPORT

Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): October 7, 2010

REX AMERICAN RESOURCES CORPORATION

(Exact name of registrant as specified in its charter)

Delaware (State or other jurisdiction of incorporation)

001-09097 (Commission File No.) 31-1095548 (IRS Employer Identification No.)

2875 Needmore Road, Dayton, Ohio (Address of principal executive offices)

45414 (Zip Code)

Registrant's telephone number, including area code: (937) 276-3931

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

o Written communications pursuant to Rule 425 under the Securities Act (17 CFR230.425)

o Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR240.14a-12)

o Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))

o Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Item 8.01. Other Events

On October 12, 2010, REX American Resources Corporation issued a press release announcing that the Company's Board of Directors authorized the repurchase of up to an additional 500,000 shares. The press release is furnished as Exhibit 99 to this report.

Item 9.01. Financial Statements and Exhibits

(c) Exhibits. The following exhibits are furnished with this report:

99 Press Release dated October 12, 2010

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

REX AMERICAN RESOURCES CORPORATION

Date: October 12, 2010

By: /s/ DOUGLAS L. BRUGGEMAN

 Name:
 Douglas L. Bruggeman

 Title:
 Vice President - Finance,

 Chief Financial Officer and Treasurer



News Announcement

For Immediate Release

REX AMERICAN RESOURCES AUTHORIZES REPURCHASE OF ADDITIONAL 500,000 SHARES

- Has Repurchased 465,000 Common Shares Since December 2009 Authorization -

Dayton, Ohio, (October 12, 2010) -- REX American Resources Corporation (NYSE: REX) today announced that its Board of Directors has authorized the repurchase of up to an additional 500,000 shares of its common stock. To date in the third quarter ending October 31, 2010, REX has repurchased 220,000 shares (at an average price of approximately \$14.87 per share). Reflecting all purchases to-date, REX presently has approximately 9,491,000 shares of common stock outstanding.

Since its December 2009 authorization, REX has repurchased 465,000 shares of common stock under the December and February 2009 authorizations. Taking into account today's authorization and the balance of a 500,000 share repurchase authorization in December 2009, REX is presently authorized to repurchase up to 573,000 shares of its common stock.

Share repurchases will be made from time to time in open market or private transactions at prevailing market prices, and all shares purchased will be held in the Company's treasury for possible future use.

About REX American Resources Corporation

REX American Resources has interests in seven ethanol production facilities representing ownership of approximately 191 million gallons per year of annual nameplate capacity. The total annual nameplate capacity of ethanol production facilities in which REX has ownership interests is approximately 632 million gallons per year. Further information about REX is available at <u>www.rexamerican.com</u>

This news announcement contains or may contain forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Such statements can be identified by use of forward-looking terminology such as "may," "expect," "believe," "estimate," "anticipate" or "continue" or the negative thereof or other variations thereon or comparable terminology. Readers are cautioned that there are risks and uncertainties that could cause actual events or results to differ materially from those referred to in such forward-looking statements. These risks and uncertainties include the risk factors set forth from time to time in the Company's filings with the Securities and Exchange Commission and include among other things: the impact of legislative changes, the price volatility and availability of corn, sorghum, dried distiller grains, ethanol, gasoline and natural gas, ethanol plants operating efficiently and according to forecasts and projections, changes in the national or regional economies, weather, the effects of terrorism or acts of war, changes in real estate market conditions and the impact of Internal Revenue Service audits. The Company does not intend to update publicly any forward-looking statements except as required by law.

For further information contact:

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