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

FORM 10-Q

(Mark One)

☒ **QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the quarterly period ended September 30, 2018

OR

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from _____ to _____

Commission File Number: 001-36410

Phibro Animal Health Corporation

(Exact name of registrant as specified in its charter)

Delaware **(State or other jurisdiction of incorporation or organization)**	**13-1840497** **(I.R.S. Employer Identification No.)**
Glenpointe Centre East, 3rd Floor **300 Frank W. Burr Boulevard, Suite 21** **Teaneck, New Jersey** **(Address of Principal Executive Offices)**	**07666-6712** **(Zip Code)**

(201) 329-7300
(Registrant's telephone number, including area code)

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files.) Yes ☒ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	☐		Accelerated filer	☒
Non-accelerated filer	☐	(Do not check if a smaller reporting company)	Smaller reporting company	☐
Emerging growth company	☒			

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☒

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☒

As of October 30, 2018, there were 20,209,534 shares of the registrant's Class A common stock, par value $0.0001 per share, and 20,166,034 shares of the registrant's Class B common stock, par value $0.0001 per share, outstanding.

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PHIBRO ANIMAL HEALTH CORPORATION

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PHIBRO ANIMAL HEALTH CORPORATION AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF OPERATIONS

For the Periods Ended September 30	Three Months 2018	Three Months 2017
	(unaudited) (in thousands, except per share amounts)	
Net sales	$200,153	$193,412
Cost of goods sold	134,348	130,030
Gross profit	65,805	63,382
Selling, general and administrative expenses	42,952	40,995
Operating income	22,853	22,387
Interest expense, net	2,783	3,118
Foreign currency (gains) losses, net	(2,635)	325
Income before income taxes	22,705	18,944
Provision for income taxes	6,391	3,052
Net income	$ 16,314	$ 15,892
Net income per share		
basic	$ 0.40	$ 0.40
diluted	$ 0.40	$ 0.39
Weighted average common shares outstanding		
basic	40,369	39,944
diluted	40,560	40,293
Dividends per share	$ 0.10	$ 0.10

The accompanying notes are an integral part of these consolidated financial statements

PHIBRO ANIMAL HEALTH CORPORATION AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

For the Periods Ended September 30	Three Months 2018	Three Months 2017
	(unaudited) (in thousands)	
Net income	$16,314	$15,892
Change in fair value of derivative instruments	541	(622)
Foreign currency translation adjustment	(7,682)	3,233
Unrecognized net pension gains (losses)	108	131
(Provision) benefit for income taxes	(162)	187
Other comprehensive income (loss)	(7,195)	2,929
Comprehensive income	$ 9,119	$18,821

The accompanying notes are an integral part of these consolidated financial statements

PHIBRO ANIMAL HEALTH CORPORATION AND SUBSIDIARIES

CONSOLIDATED BALANCE SHEETS

As of	September 30, 2018	June 30, 2018
	(unaudited) (in thousands, except share and per share amounts)	
ASSETS		
Cash and cash equivalents	$ 25,860	$ 29,168
Short-term investments	50,000	50,000
Accounts receivable, net	134,815	135,742
Inventories, net	185,794	178,170
Other current assets	23,324	22,381
Total current assets	419,793	415,461
Property, plant and equipment, net	130,786	130,108
Intangibles, net	51,888	51,978
Goodwill	27,348	27,348
Other assets	48,660	46,784
Total assets	$ 678,475	$671,679
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current portion of long-term debt	$ 12,580	$ 12,579
Accounts payable	61,870	59,498
Accrued expenses and other current liabilities	54,281	71,144
Total current liabilities	128,731	143,221
Revolving credit facility	85,000	70,000
Long-term debt	226,750	229,802
Other liabilities	45,937	43,702
Total liabilities	486,418	486,725
Commitments and contingencies (Note 8)		
Common stock, par value $0.0001 per share; 300,000,000 Class A shares authorized, 20,209,534 and 19,992,204 shares issued and outstanding at September 30, 2018 and June 30, 2018, respectively; 30,000,000 Class B shares authorized, 20,166,034 and 20,365,504 shares issued and outstanding at September 30, 2018 and June 30, 2018, respectively	4	4
Preferred stock, par value $0.0001 per share; 16,000,000 shares authorized, no shares issued and outstanding	—	—
Paid-in capital	130,649	129,873
Retained earnings	145,082	131,560
Accumulated other comprehensive income (loss)	(83,678)	(76,483)
Total stockholders' equity	192,057	184,954
Total liabilities and stockholders' equity	$ 678,475	$671,679

The accompanying notes are an integral part of these consolidated financial statements

PHIBRO ANIMAL HEALTH CORPORATION AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF CASH FLOWS

For the Periods Ended September 30	Three Months 2018	Three Months 2017
	(unaudited) (in thousands)	
OPERATING ACTIVITIES		
Net income	$ 16,314	$ 15,892
Adjustments to reconcile net income to net cash provided (used) by operating activities:		
Depreciation and amortization	6,691	6,644
Amortization of debt issuance costs and debt discount	221	221
Stock-based compensation	565	—
Acquisition-related cost of goods sold	—	249
Acquisition-related accrued compensation	—	437
Acquisition-related accrued interest	—	253
Deferred income taxes	(473)	770
Foreign currency (gains) losses, net	(2,981)	345
Other	266	213
Changes in operating assets and liabilities, net of business acquisitions:		
Accounts receivable, net	(85)	(8,386)
Inventories, net	(9,504)	(5,196)
Other current assets	(3,654)	(4,458)
Other assets	371	332
Accounts payable	2,794	3,652
Accrued expenses and other liabilities	(9,245)	(6,165)
Net cash provided (used) by operating activities	1,280	4,803
INVESTING ACTIVITIES		
Capital expenditures	(6,049)	(4,998)
Business acquisitions	(9,838)	(11,562)
Other, net	(262)	(272)
Net cash provided (used) by investing activities	(16,149)	(16,832)
FINANCING ACTIVITIES		
Revolving credit facility borrowings	71,000	61,870
Revolving credit facility repayments	(56,000)	(41,870)
Payments of long-term debt, capital leases and other	(3,215)	(1,652)
Issuance of acquisition note payable	3,775	—
Proceeds from common shares issued	211	3,486
Dividends paid	(4,037)	(3,989)
Net cash provided (used) by financing activities	11,734	17,845
Effect of exchange rate changes on cash	(173)	198
Net increase (decrease) in cash and cash equivalents	(3,308)	6,014
Cash and cash equivalents at beginning of period	29,168	56,083
Cash and cash equivalents at end of period	$ 25,860	$ 62,097

The accompanying notes are an integral part of these consolidated financial statements

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(in thousands, except per share amounts)
(unaudited)

1. Description of Business

Phibro Animal Health Corporation ("Phibro" or "PAHC") and its subsidiaries (together, the "Company") is a diversified global developer, manufacturer and marketer of a broad range of animal health and mineral nutrition products for food animals including poultry, swine, cattle, dairy and aquaculture. The Company is also a manufacturer and marketer of performance products for use in the personal care, industrial chemical and chemical catalyst industries. Unless otherwise indicated or the context requires otherwise, references in this report to "we," "our," "us," and similar expressions refer to Phibro and its subsidiaries.

The unaudited consolidated financial information for the three months ended September 30, 2018 and 2017, is presented on the same basis as the financial statements included in the Company's Annual Report on Form 10-K for the fiscal year ended June 30, 2018 (the "Annual Report"), filed with the Securities and Exchange Commission on August 27, 2018 (File no. 001-36410). In the opinion of management, these financial statements include all adjustments necessary for a fair statement of the financial position, results of operations and cash flows of the Company for the interim periods, and the adjustments are of a normal and recurring nature. The financial results for any interim period are not necessarily indicative of the results for the full year. The consolidated balance sheet information as of June 30, 2018, was derived from the audited consolidated financial statements, which include the accounts of Phibro and its consolidated subsidiaries, but does not include all disclosures required by accounting principles generally accepted in the United States of America ("GAAP"). The unaudited consolidated financial information should be read in conjunction with the consolidated financial statements and notes thereto included in the Annual Report.

The consolidated financial statements include the accounts of Phibro and its consolidated subsidiaries. Intercompany balances and transactions have been eliminated in the consolidated financial statements. The decision whether or not to consolidate an entity requires consideration of majority voting interests, as well as effective control over the entity.

2. Summary of Significant Accounting Policies and New Accounting Standards

Our significant accounting policies are described in the notes to the consolidated financial statements included in our Annual Report. We adopted Financial Accounting Standards Board ("FASB") Accounting Standards Update ("ASU") 2014-09, *Revenue from Contracts with Customers (Topic 606),* effective July 1, 2018. See "New Accounting Standards" and "Statements of Operations—Additional Information." As of September 30, 2018, there have been no other material changes to our significant accounting policies

Revenue Recognition

We recognize revenue from product sales when control of the products has transferred to the customer, typically when title and risk of loss transfer to the customer. Certain of our businesses have terms where control of the underlying products transfers to the customer on shipment, while others have terms where control transfers to the customer on delivery.

Revenue reflects the total consideration to which we expect to be entitled, in exchange for delivery of products or services, net of variable consideration. Variable consideration includes customer programs and incentive offerings, including pricing arrangements, rebates and other volume-based incentives. We record reductions to revenue for estimated variable consideration at the time we record the sale. Our estimates for variable consideration primarily use the most-likely amount method. Such estimates are generally based on contractual terms and historical experience, and are adjusted to reflect future expectations as new information becomes available. Historically, we have not had significant adjustments to our estimates of customer incentives. Sales returns and product recalls have been insignificant and infrequent due to the nature of the products we sell.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

Net sales include shipping and handling fees billed to customers. The associated costs are considered fulfillment activities, not additional promised services to the customer, and are included in costs of goods sold in the consolidated statements of operations when the related revenue is recognized. Net sales exclude value-added and other taxes based on sales.

Net Income per Share and Weighted Average Shares

Basic net income per share is calculated by dividing net income by the weighted average number of common shares outstanding during the reporting period.

Diluted net income per share is calculated by dividing net income by the weighted average number of common shares outstanding during the reporting period after giving effect to potential dilutive common shares resulting from the assumed exercise of stock options and vesting of restricted stock units. All common share equivalents were included in the calculation of diluted net income per share for all periods presented.

	Three Months	
For the Periods Ended September 30	**2018**	**2017**
Net income	$ 16,314	$15,892
Weighted average number of shares – basic	40,369	39,944
Dilutive effect of stock options and restricted stock units	191	349
Weighted average number of shares – diluted	40,560	40,293
Net income per share		
basic	$ 0.40	$ 0.40
diluted	$ 0.40	$ 0.39

Dividends

We declared and paid a quarterly cash dividend of $0.10 per share, totaling $4,037 during the three months ended September 30, 2018, to holders of our Class A common stock and Class B common stock. On November 5, 2018, we declared a dividend of $0.12 per share, to be paid December 19, 2018.

New Accounting Standards

ASU 2018-14, *Compensation—Retirement Benefits—Defined Benefit Plans—General (Topic 715-20): Disclosure Framework—Changes to the Disclosure Requirements for Defined Benefit Plans*, modifies existing disclosure requirements for defined benefit pension and other postretirement plans. This ASU is effective for fiscal years ending after December 15, 2020 and must be applied on a retrospective basis. We continue to evaluate the effect of adoption of this guidance on our consolidated financial statements.

ASU 2018-13, *Fair Value Measurement (Topic 820): Disclosure Framework—Changes to the Disclosure Requirements for Fair Value Measurement*, modifies existing disclosure requirements for fair value measurement. This ASU is effective for fiscal years beginning after December 15, 2019. We continue to evaluate the effect of adoption of this guidance on our consolidated financial statements.

ASU 2018-02, *Income Statement—Reporting Comprehensive Income (Topic 220): Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income*, allows reclassification from accumulated other comprehensive income to retained earnings of stranded tax effects related to adjustments resulting from the United States Tax Cuts and Jobs Act. This ASU is effective for annual reporting periods beginning after December 15, 2018. We do not expect adoption of this guidance to have a material effect on our consolidated financial statements.

ASU 2016-15, *Statement of Cash Flows (Topic 230): Classification of Certain Cash Receipts and Cash Payments*, provides specific guidance for the classification of certain transactions within the statement of cash flows. We adopted this guidance during the three months ended September 30, 2018, and it did not have a material effect on our consolidated financial statements.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

ASU 2016-02, *Leases (Topic 842)*, supersedes the current lease accounting guidance, requires an entity to recognize assets and liabilities for both financing and operating leases on the balance sheet and requires additional qualitative and quantitative disclosures regarding leasing arrangements. This ASU and its amendments are effective for annual reporting periods beginning after December 15, 2018. We continue to evaluate the effect of adoption of this guidance on our consolidated financial statements.

ASU 2014-09, *Revenue from Contracts with Customers (Topic 606)*, establishes principles for the recognition of revenue from contracts with customers. The underlying principle is to identify the performance obligations of a contract, allocate the revenue to each performance obligation and then to recognize revenue when the company satisfies a specific performance obligation of the contract. We adopted ASU 2014-09 and its amendments effective July 1, 2018, using the modified retrospective method. Comparative prior period amounts were not restated and continue to be reported under the accounting standards in effect for those periods. The adoption of the new revenue standard did not have a material effect on reported net sales or retained earnings.

The total cumulative effect of initial adoption of the new standard resulted in the following changes to our consolidated balance sheet:

As of July 1, 2018	Effect of Adoption	Post-adoption
Other current assets	$ 2,100	$ 24,481
Other assets	2,325	49,109
Accrued expenses and other current liabilities	343	71,487
Other liabilities	2,837	46,539
Retained earnings	$ 1,245	$ 132,805

The effect of the adoption of the new revenue standard on our consolidated balance sheet and consolidated statement of operations was:

As of September 30, 2018	Effect of adoption	As reported
ASSETS		
Other current assets	$ 56	$ 23,324
Other assets	56	48,660
LIABILITIES AND STOCKHOLDERS' EQUITY		
Accrued expenses and other current liabilities	(80)	54,281
Other liabilities	26	45,937
Retained earnings	$ 166	$ 145,082

	Three Months	
For the Period Ended September 30, 2018	Effect of adoption	As reported
Net sales	$ 198	$ 200,153
Provision for income taxes	32	6,391
Net income	$ 166	$ 16,314

For changes to our policy as a result of the adoption of ASU 2014-09, see "—Summary of Significant Accounting Policies and New Accounting Standards—Revenue Recognition." See "Statements of Operations—Additional Information" for our disclosures regarding disaggregated revenue, deferred revenue and customer payment terms.

3. Statements of Operations—Additional Information

Disaggregated revenue, deferred revenue and customer payment terms

We develop, manufacture and market products for a broad range of food animals including poultry, swine, beef and dairy cattle and aquaculture. The products help prevent, control and treat diseases, enhance nutrition to help improve health and contribute to balanced mineral nutrition. The animal health and mineral nutrition products are sold either directly to integrated poultry, swine and cattle integrators or through commercial animal feed manufacturers, wholesalers and distributors. The animal health industry and demand for many of the animal health products in a particular region are affected by changing disease pressures and by weather conditions, as product usage follows varying weather patterns and seasons. Our operations are primarily focused in regions where the majority of livestock production is consolidated in large commercial farms.

We have a diversified portfolio of products that are classified within our three business segments—Animal Health, Mineral Nutrition and Performance Products. Each segment has its own dedicated management and sales team.

Animal Health

The Animal Health business develops, manufactures and markets products in three main categories:

- MFAs and Other: The MFAs and other business primarily consists of concentrated medicated products that are administered through animal feeds, commonly referred to as Medicated Feed Additives (“MFAs”). Specific product classifications include antibacterials, which inhibit the growth of pathogenic bacteria that cause bacterial infections in animals; anticoccidials, which inhibit the growth of coccidia (parasites) that damage the intestinal tract of animals; and other related products.

- Nutritional Specialties: Nutritional specialty products enhance nutrition to help improve health and performance in areas such as immune system function and digestive health.

- Vaccines: Our vaccines are primarily focused on preventing diseases in poultry and swine. They protect animals from either viral or bacterial disease challenges. We also manufacture and distribute autogenous vaccine products and market adjuvants to vaccine manufacturers. We have developed an innovative and proprietary delivery platform for vaccines.

Mineral Nutrition

The Mineral Nutrition business is comprised of formulations and concentrations of trace minerals such as zinc, manganese, copper, iron and other compounds, with a focus on customers in North America. The customers use these products to fortify the daily feed requirements of their livestock’s diets and maintain an optimal balance of trace elements in each animal. Mineral nutrition products are manufactured and marketed for a broad range of food animals including poultry, swine and beef and dairy cattle.

Performance Products

The Performance Products business manufactures and markets a number of specialty ingredients for use in the personal care, industrial chemical and chemical catalyst industries, predominantly in the United States.

The following tables present our revenues disaggregated by major product category and geographic region:

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

Net Sales by Product Type

For the Periods Ended September 30	Three Months 2018	Three Months 2017
Animal Health		
MFAs and other	$ 87,004	$ 79,603
Nutritional specialties	26,970	30,777
Vaccines	17,215	18,461
Total Animal Health	$131,189	$128,841
Mineral Nutrition	54,838	52,073
Performance Products	14,126	12,498
Total	$200,153	$193,412

Net Sales by Region

For the Periods Ended September 30	Three Months 2018	Three Months 2017
United States	$116,093	$113,079
Latin America and Canada	38,258	32,368
Europe, Middle East and Africa	24,858	25,308
Asia Pacific	20,944	22,657
Total	$200,153	$193,412

Net sales by region are based on country of destination.

Total deferred revenue was $7,414 and $4,530 as of September 30, 2018 and June 30, 2018, respectively. Accrued expenses and other current liabilities included $778 and $508 of the total deferred revenue as of September 30, 2018 and June 30, 2018, respectively. The deferred revenue resulted primarily from certain customer arrangements, including technology licensing fees and discounts on future product sales. The transaction price associated with our deferred revenue arrangements is generally based on the stand alone sales prices of the individual products or services.

Our customer payment terms generally range from 30 to 120 days globally and do not include any significant financing components. Payment terms vary based on industry and business practices within the regions in which we operate. Our average worldwide collection period for accounts receivable is approximately 60 days after the revenue is recognized.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

Interest expense and Depreciation and amortization

For the Periods Ended September 30	Three Months 2018	Three Months 2017
Interest expense, net		
Term loan	$2,112	$2,033
Revolving credit facility	747	681
Amortization of debt issuance costs and debt discount	221	221
Acquisition-related accrued interest	—	253
Other	163	239
Interest expense	3,243	3,427
Interest (income)	(460)	(309)
	$2,783	$3,118
Depreciation and amortization		
Depreciation of property, plant and equipment	$5,188	$5,183
Amortization of intangible assets	1,491	1,449
Amortization of other assets	12	12
	$6,691	$6,644

4. Balance Sheets—Additional Information

As of	September 30, 2018	June 30, 2018
Inventories		
Raw materials	$ 79,384	$ 62,373
Work-in-process	14,707	14,731
Finished goods	91,703	101,066
	$ 185,794	$178,170

We evaluate our investments in equity method investees for impairment if circumstances indicate that the fair value of the investment may be impaired. The assets underlying a $3,491 equity investment are currently idled; we have concluded the investment is not currently impaired, based on expected future operating cash flows and/or disposal value.

As of	September 30, 2018	June 30, 2018
Accrued expenses and other current liabilities		
Employee related	$ 19,852	$27,333
Commissions and rebates	5,784	7,341
Insurance-related	1,236	1,168
Professional fees	4,331	4,350
Income and other taxes	4,406	3,610
Acquisition-related consideration	3,877	12,845
Fair value of derivatives	60	—
Other	14,735	14,497
	$ 54,281	$71,144

During the quarter ended September 30, 2018, we accelerated the closing date and completed the purchase of intellectual property and certain other assets comprising the MJ Biologics, Inc. ("MJB") business relating to animal vaccines. The Company and MJB had originally agreed in January 2015 to the purchase business combination, with a contemplated final closing date in January 2021. The final amount due, net of previously paid amounts, was $12,775, including $9,000 paid in July 2018 and a $3,775 acquisition note payable in January 2019.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

As of	September 30, 2018	June 30, 2018
Accumulated other comprehensive income (loss)		
Derivative instruments	$ 5,527	$ 4,986
Foreign currency translation adjustment	(74,780)	(67,098)
Unrecognized net pension gains (losses)	(18,105)	(18,213)
(Provision) benefit for income taxes on derivative instruments	(1,376)	(1,241)
(Provision) benefit for income taxes on long-term intercompany investments	8,166	8,166
(Provision) benefit for income taxes on pension gains (losses)	(3,110)	(3,083)
	$ (83,678)	$ (76,483)

5. Debt

Term Loans and Revolving Credit Facilities

Pursuant to a credit agreement (the "Credit Agreement"), we have a revolving credit facility (the "Revolver"), where we can borrow up to $250,000, subject to the terms of the agreement, and a term A loan with an aggregate initial principal amount of $250,000 (the "Term A Loan," and together with the Revolver, the "Credit Facilities"). The Credit Facilities have applicable margins equal to 2.00%, 1.75% or 1.50%, in the case of LIBOR and Eurodollar rate loans and 1.00%, 0.75% or 0.50%, in the case of base rate loans; the applicable margins are based on the First Lien Net Leverage Ratio, as defined in the Credit Agreement. The LIBOR rate is subject to a floor of 0.00%. The Credit Facilities mature on June 29, 2022.

The Credit Facilities require, among other things, the maintenance of (i) a maximum First Lien Net Leverage Ratio and (ii) a minimum consolidated interest coverage ratio, each calculated on a trailing four quarter basis, and contain an acceleration clause should an event of default (as defined in the agreement governing the Credit Facilities) occur. As of September 30, 2018, we were in compliance with the covenants of the Credit Facilities.

As of September 30, 2018, we had $85,000 in borrowings under the Revolver and had outstanding letters of credit of $4,191, leaving $160,809 available for borrowings and letters of credit under the Revolver. We obtain letters of credit in connection with certain regulatory and insurance obligations, inventory purchases and other contractual obligations. The terms of these letters of credit are one year or less.

As of September 30, 2018, the interest rates for the Revolver and the Term A Loan were 3.76% and 3.49%, respectively. The weighted-average interest rates for the outstanding revolving credit facilities were 3.68% and 2.98% for the three months ended September 30, 2018 and 2017, respectively. The weighted-average interest rates for the term loans were 3.43% and 3.22% for the three months ended September 30, 2018 and 2017, respectively.

In July 2017, we entered into an interest rate swap agreement on $150 million of notional principal that effectively converts the floating LIBOR or base rate portion of our interest obligation on that amount of debt, to a fixed interest rate of 1.8325% plus the applicable rate. The agreement matures concurrent with the Credit Agreement. The interest rate swap has been designated as a highly effective cash flow hedge. For additional details, see "—Derivatives."

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

Long-Term Debt

As of	September 30, 2018	June 30, 2018
Term A Loan due June 2022	$ 240,625	$243,750
Capitalized lease obligations	99	118
	240,724	243,868
Unamortized debt issuance costs and debt discount	(1,394)	(1,487)
	239,330	242,381
Less: current maturities	(12,580)	(12,579)
	$ 226,750	$229,802

6. Related Party Transactions

Certain relatives of Jack C. Bendheim, our Chairman, President and Chief Executive Officer, provided services to us as employees or consultants and received aggregate compensation and benefits of approximately $783 and $720 during the three months ended September 30, 2018 and 2017, respectively. Mr. Bendheim has sole authority to vote shares of our stock owned by BFI Co., LLC, an investment vehicle of the Bendheim family.

7. Income Taxes

In December 2017, the United States government enacted comprehensive income tax legislation (the "Tax Act"). The Tax Act makes broad and complex changes to United States income tax law and includes numerous elements that affect the Company, including a reduced federal corporate income tax rate from 35% to 21%, creating a territorial tax system that includes a one-time mandatory transition tax on previously deferred foreign earnings and changes to business-related exclusions, deductions and credits. The Tax Act also has consequences related to our international operations.

We have substantially completed our analysis and accounting for the Tax Act. However, the ultimate financial statement effects of the Tax Act could differ from the amounts we have recognized to date, due to additional information that becomes available, changes in regulations or interpretations, legislative action to address questions around the Tax Act or changes in accounting standards for income taxes or related interpretations. As such, the amounts we have recorded are provisional and we could adjust such amounts in the three months ended December 31, 2018, if additional new information so requires.

8. Commitments and Contingencies

Environmental

Our operations and properties are subject to extensive federal, state, local and foreign laws and regulations, including those governing pollution; protection of the environment; the use, management, and release of hazardous materials, substances and wastes; air emissions; greenhouse gas emissions; water use, supply and discharges; the investigation and remediation of contamination; the manufacture, distribution, and sale of regulated materials, including pesticides; the importing, exporting and transportation of products; and the health and safety of our employees (collectively, "Environmental Laws"). As such, the nature of our current and former operations exposes us to the risk of claims with respect to such matters, including fines, penalties, and remediation obligations that may be imposed by regulatory authorities. Under certain circumstances, we might be required to curtail operations until a particular problem is remedied. Known costs and expenses under Environmental Laws incidental to ongoing operations, including the cost of litigation proceedings relating to environmental matters, are included within operating results. Potential costs and expenses may also be incurred in connection with the repair or upgrade of facilities to meet existing or new requirements under Environmental Laws or to investigate or remediate potential or actual contamination and from time to time we establish reserves for such contemplated investigation and remediation costs. In many instances, the ultimate costs under Environmental Laws and the time period during which such costs are likely to be incurred are difficult to predict.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

While we believe that our operations are currently in material compliance with Environmental Laws, we have, from time to time, received notices of violation from governmental authorities, and have been involved in civil or criminal action for such violations. Additionally, at various sites, our subsidiaries are engaged in continuing investigation, remediation and/or monitoring efforts to address contamination associated with historic operations of the sites. We devote considerable resources to complying with Environmental Laws and managing environmental liabilities. We have developed programs to identify requirements under, and maintain compliance with Environmental Laws; however, we cannot predict with certainty the effect of increased and more stringent regulation on our operations, future capital expenditure requirements, or the cost of compliance.

The nature of our current and former operations exposes us to the risk of claims with respect to environmental matters and we cannot assure we will not incur material costs and liabilities in connection with such claims. Based upon our experience to date, we believe that the future cost of compliance with existing Environmental Laws, and liabilities for known environmental claims pursuant to such Environmental Laws, will not have a material adverse effect on our financial position, results of operations, cash flows or liquidity.

The United States Environmental Protection Agency (the "EPA") is investigating and planning for the remediation of offsite contaminated groundwater that has migrated from the Omega Chemical Corporation Superfund Site ("Omega Chemical Site"), which is upgradient of Phibro-Tech's Santa Fe Springs, California facility. The EPA has named Phibro-Tech and certain other subsidiaries of PAHC as potentially responsible parties ("PRPs") due to groundwater contamination from Phibro-Tech's Santa Fe Springs facility that has allegedly commingled with contaminated groundwater from the Omega Chemical Site. In September 2012, the EPA notified approximately 140 PRPs, including Phibro-Tech and the other subsidiaries, that they have been identified as potentially responsible for remedial action for the groundwater plume affected by the Omega Chemical Site and for EPA oversight and response costs. Phibro-Tech contends that any groundwater contamination at its site is localized and due to historical operations that pre-date Phibro-Tech and/or contaminated groundwater that has migrated from upgradient properties. In addition, a successor to a prior owner of the Phibro-Tech site has asserted that PAHC and Phibro-Tech are obligated to provide indemnification for its potential liability and defense costs relating to the groundwater plume affected by the Omega Chemical Site. Phibro-Tech has vigorously contested this position and has asserted that the successor to the prior owner is required to indemnify Phibro-Tech for its potential liability and defense costs. Furthermore, a group of companies that sent chemicals to the Omega Chemical Site for processing and recycling has filed a complaint under CERCLA and RCRA in the United States District Court for the Central District of California against many of the PRPs allegedly associated with the groundwater plume affected by the Omega Chemical Site (including Phibro-Tech) for contribution toward past and future costs associated with the investigation and remediation of the groundwater plume affected by the Omega Chemical Site. Due to the ongoing nature of the EPA's investigation, the preliminary stage of the ongoing litigation and Phibro-Tech's dispute with the prior owner's successor, at this time we cannot predict with any degree of certainty what, if any, liability Phibro-Tech or the other subsidiaries may ultimately have for investigation, remediation and the EPA oversight and response costs associated with the affected groundwater plume.

Based upon information available, to the extent such costs can be estimated with reasonable certainty, we estimated the cost for further investigation and remediation of identified soil and groundwater problems at operating sites, closed sites and third-party sites, and closure costs for closed sites, to be approximately $6,581 and $6,833 at September 30, 2018 and June 30, 2018, respectively, which is included in current and long-term liabilities on the consolidated balance sheets. However, future events, such as new information, changes in existing Environmental Laws or their interpretation, and more vigorous enforcement policies of regulatory agencies, may give rise to additional expenditures or liabilities that could be material. For all purposes of the discussion under this caption and elsewhere in this report, it should be noted that we take and have taken the position that neither PAHC nor any of our subsidiaries is liable for environmental or other claims made against one or more of our other subsidiaries or for which any of such other subsidiaries may ultimately be responsible.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

Claims and Litigation

PAHC and its subsidiaries are party to a number of claims and lawsuits arising out of the normal course of business including product liabilities, payment disputes and governmental regulation. Certain of these actions seek damages in various amounts. In many cases, our insurance policies will cover such claims. We believe that none of the claims or pending lawsuits, either individually or in the aggregate, will have a material adverse effect on our financial position, results of operations, cash flows or liquidity.

9. Derivatives

We monitor our exposure to foreign currency exchange rates and interest rates and from time-to-time use derivatives to manage certain of these risks. We designate derivatives as a hedge of a forecasted transaction or of the variability of the cash flows to be received or paid in the future related to a recognized asset or liability (cash flow hedge). All changes in the fair value of a highly effective cash flow hedge are recorded as an asset or liability with a corresponding amount recorded in accumulated other comprehensive income (loss).

We routinely assess whether the derivatives used to hedge transactions are effective. If we determine a derivative ceases to be an effective hedge, we discontinue hedge accounting in the period of the assessment for that derivative, and immediately recognize any unrealized gains or losses related to the fair value of that derivative in the consolidated statements of operations.

We record derivatives at fair value in the consolidated balance sheets. For additional details regarding fair value, see “—Fair Value Measurements.”

We entered into an interest rate swap agreement on $150,000 of notional principal that effectively converts the floating LIBOR or base rate portion of our interest obligation on that amount of debt, to a fixed interest rate of 1.8325% plus the applicable rate. The agreement matures concurrent with the Credit Agreement. The forecasted transactions are probable of occurring, and the interest rate swap has been designated as a highly effective cash flow hedge.

We entered into foreign currency option contracts to hedge cash flows related to monthly inventory purchases. The individual option contracts mature monthly through June 2020. The forecasted inventory purchases are probable of occurring and the individual option contracts were designated as highly effective cash flow hedges.

The following table summarizes the outstanding derivatives that are designated and effective as cash flow hedges as of September 30, 2018:

Instrument	Hedge	Notional Amount at September 30, 2018	Consolidated Balance Sheet	Fair value as of September 30, 2018	Fair value as of June 30, 2018
Options	Brazilian Real calls	R$94,500	(1)	$ 496	$ 71
Options	Brazilian Real puts	R$94,500	(1)	$ (556)	$ —
Swap	Interest rate swap	$150,000	Other assets	$ 5,728	$ 5,078

(1) We record the net fair values of our outstanding foreign currency option contracts within the respective balance sheet line item based on the net financial position and maturity date of the individual contracts as of the balance sheet date. As of September 30, 2018, the net fair value of $60 was included in accrued expenses and other current liabilities. As of June 30, 2018, the net fair value of $71 was included in other current assets.

The following tables show the effects of derivatives on the consolidated statements of operations and other comprehensive income for the periods ended September 30, 2018 and 2017.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

For the Three Months Ended September 30

Instrument	Hedge	Gain (Loss) recorded in OCI 2018	Gain (Loss) recorded in OCI 2017	Gain (Loss) recognized in consolidated statements of operations: Consolidated Statement of Operations	2018	2017	Consolidated Statement of Operations Line Item Total 2018	2017
Options	Brazilian Real puts and calls	$(109)	$(905)	Cost of goods sold	$ 1,084	$ 186	$134,348	$ 130,030
Swap	Interest rate swap	$ 650	$ 283	Interest expense, net	$ —	$ —	$ 2,783	$ 3,118

We recognize gains (losses) related to these foreign currency derivatives as a component of cost of goods sold at the time the hedged item is sold. Realized net gains of $1,084 related to matured contracts were recorded as a component of inventory as of June 30, 2018 and were recognized as an offset to costs of goods sold during the three months ended September 30, 2018.

10. Fair Value Measurements

Short-term investments

As of September 30, 2018, our short-term investments consist of cash deposits held at financial institutions. We consider the carrying amounts of these short-term investments to be representative of their fair value.

Derivatives

We determine the fair value of derivative instruments based upon pricing models using observable market inputs for these types of financial instruments, such as spot and forward currency translation rates, and interest rate curves.

Fair Value of Assets (Liabilities)

As of	September 30, 2018 Level 1	September 30, 2018 Level 2	June 30, 2018 Level 1	June 30, 2018 Level 2
Short-term investments	$50,000	$ —	$50,000	$ —
Derivatives asset (liability)	$ —	$ (60)	$ —	$ 71
Interest rate swap	$ —	$5,728	$ —	$5,078

There were no Level 3 fair value measurements for the periods presented.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

11. Business Segments

We evaluate performance and allocate resources based on the Animal Health, Mineral Nutrition and Performance Products segments. Certain of our costs and assets are not directly attributable to these segments and we refer to these items as Corporate. We do not allocate Corporate costs or assets to the segments because they are not used to evaluate the segments' operating results or financial position. Corporate costs include certain costs related to executive management, business technology, legal, finance, human resources and business development. Corporate assets include cash and cash equivalents, certain debt issue costs, income tax related assets and certain other assets.

We evaluate performance of our segments based on Adjusted EBITDA. We define Adjusted EBITDA as income before income taxes plus (a) interest expense, net, (b) depreciation and amortization, (c) (income) loss from, and disposal of, discontinued operations, (d) other expense or less other income, as separately reported on our consolidated statements of operations, including foreign currency gains and losses and loss on extinguishment of debt, and (e) certain items that we consider to be unusual, non-operational or non-recurring.

The accounting policies of our segments are the same as those described in the summary of significant accounting policies included herein.

	Three Months	
For the Periods Ended September 30	**2018**	**2017**
Net sales		
Animal Health	$131,189	$128,841
Mineral Nutrition	54,838	52,073
Performance Products	14,126	12,498
Total segments	$200,153	$193,412
Depreciation and amortization		
Animal Health	$ 5,356	$ 5,254
Mineral Nutrition	597	585
Performance Products	273	246
Total segments	$ 6,226	$ 6,085
Adjusted EBITDA		
Animal Health	$ 35,716	$ 33,742
Mineral Nutrition	2,563	3,716
Performance Products	716	248
Total segments	$ 38,995	$ 37,706

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

	Three Months	
For the Periods Ended September 30	2018	2017
Reconciliation of income before income taxes to Adjusted EBITDA		
Income before income taxes	$22,705	$18,944
Interest expense, net	2,783	3,118
Depreciation and amortization – Total segments	6,226	6,085
Depreciation and amortization – Corporate	465	559
Corporate costs	8,886	7,589
Stock-based compensation	565	—
Acquisition-related cost of goods sold	—	249
Acquisition-related accrued compensation	—	437
Acquisition-related transaction costs	—	400
Foreign currency (gains) losses, net	(2,635)	325
Adjusted EBITDA – Total segments	$38,995	$37,706

As of	September 30, 2018	June 30, 2018
Identifiable assets		
Animal Health	$ 461,119	$455,704
Mineral Nutrition	73,895	69,779
Performance Products	29,048	24,040
Total segments	564,062	549,523
Corporate	114,413	122,156
Total	$ 678,475	$671,679

The Animal Health segment includes all goodwill of the Company. The Animal Health segment includes advances to and investment in an equity method investee of $3,491 and $3,432 as of September 30, 2018 and June 30, 2018, respectively. The Performance Products segment includes an investment in an equity method investee of $528 and $437 as of September 30, 2018 and June 30, 2018, respectively. Corporate assets include cash and cash equivalents, short-term investments, certain debt issuance costs, income tax related assets and certain other assets.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations

Introduction

Our management's discussion and analysis of financial condition and results of operations ("MD&A") is provided to assist readers in understanding our performance, as reflected in the results of our operations, our financial condition and our cash flows. The following discussion summarizes the significant factors affecting our consolidated operating results, financial condition, liquidity and cash flows as of and for the periods presented below. This MD&A should be read in conjunction with our consolidated financial statements and related notes thereto included elsewhere in this Quarterly Report on Form 10-Q. Our future results could differ materially from our historical performance as a result of various factors such as those discussed in "Risk Factors" and "Forward-Looking Statements."

Overview of our business

Phibro Animal Health Corporation is a global diversified animal health and mineral nutrition company. We develop, manufacture and market products for a broad range of food animals including poultry, swine, beef and dairy cattle and aquaculture. Our products help prevent, control and treat diseases, enhance nutrition to help improve health and performance and contribute to balanced mineral nutrition. In addition to animal health and mineral nutrition products, we manufacture and market specific ingredients for use in the personal care, industrial chemical and chemical catalyst industries.

Analysis of the consolidated statements of operations

Summary Results of Operations

	Three Months			
For the Periods Ended September 30	**2018**	**2017**	**Change**	
	(in thousands, except per share amounts and percentages)			
Net sales	$ 200,153	$ 193,412	$ 6,741	*3%*
Gross profit	65,805	63,382	2,423	*4%*
Selling, general and administrative expenses	42,952	40,995	1,957	*5%*
Operating income	22,853	22,387	466	*2%*
Interest expense, net	2,783	3,118	(335)	*(11)%*
Foreign currency (gains) losses, net	(2,635)	325	(2,960)	*
Income before income taxes	22,705	18,944	3,761	*20%*
Provision for income taxes	6,391	3,052	3,339	*109%*
Net income	$ 16,314	$ 15,892	$ 422	*3%*
Net income per share				
basic	$ 0.40	$ 0.40	—	
diluted	$ 0.40	$ 0.39	$ 0.01	
Weighted average number of shares outstanding				
basic	40,369	39,944		
diluted	40,560	40,293		
Ratio to net sales				
Gross profit	*32.9%*	*32.8%*		
Selling, general and administrative expenses	*21.5%*	*21.2%*		
Operating income	*11.4%*	*11.6%*		
Income before income taxes	*11.3%*	*9.8%*		
Net income	*8.2%*	*8.2%*		
Effective tax rate	*28.1%*	*16.1%*		

Certain amounts and percentages may reflect rounding adjustments.

Net sales, Adjusted EBITDA and reconciliation of GAAP net income to Adjusted EBITDA

We report Net sales and Adjusted EBITDA by segment to understand the operating performance of each segment. This enables us to monitor changes in net sales, costs and other actionable operating metrics at the segment level. See "—General description of non-GAAP financial measures."

Segment net sales and Adjusted EBITDA:

	Three Months			
For the Periods Ended September 30	**2018**	**2017**	**Change**	
	(in thousands, except percentages)			
Net sales				
MFAs and other	$ 87,004	$ 79,603	$ 7,401	*9%*
Nutritional specialties	26,970	30,777	(3,807)	*(12)%*
Vaccines	17,215	18,461	(1,246)	*(7)%*
Animal Health	131,189	128,841	2,348	*2%*
Mineral Nutrition	54,838	52,073	2,765	*5%*
Performance Products	14,126	12,498	1,628	*13%*
Total	$200,153	$193,412	$ 6,741	*3%*
Adjusted EBITDA				
Animal Health	$ 35,716	$ 33,742	$ 1,974	*6%*
Mineral Nutrition	2,563	3,716	(1,153)	*(31)%*
Performance Products	716	248	468	*189%*
Corporate	(8,886)	(7,589)	(1,297)	*
Total	$ 30,109	$ 30,117	$ (8)	*(0)%*
Adjusted EBITDA ratio to segment net sales				
Animal Health	*27.2%*	*26.2%*		
Mineral Nutrition	*4.7%*	*7.1%*		
Performance Products	*5.1%*	*2.0%*		
Corporate[(1)]	*(4.4)%*	*(3.9)%*		
Total[(1)]	*15.0%*	*15.6%*		

(1) reflects ratio to total net sales

The table below sets forth a reconciliation of net income, as reported under GAAP, to Adjusted EBITDA:

	Three Months			
For the Periods Ended September 30	2018	2017	Change	
	(in thousands, except percentages)			
Net income	$16,314	$15,892	$ 422	*3%*
Interest expense, net	2,783	3,118	(335)	*(11)%*
Provision (benefit) for income taxes	6,391	3,052	3,339	*109%*
Depreciation and amortization	6,691	6,644	47	*1%*
EBITDA	32,179	28,706	3,473	*12%*
Stock-based compensation	565	—	565	*
Acquisition-related cost of goods sold	—	249	(249)	*
Acquisition-related accrued compensation	—	437	(437)	*
Acquisition-related transaction costs	—	400	(400)	*
Foreign currency (gains) losses, net	(2,635)	325	(2,960)	*
Adjusted EBITDA	$30,109	$30,117	$ (8)	*(0)%*

Certain amounts and percentages may reflect rounding adjustments.

* Calculation not meaningful

Comparison of three months ended September 30, 2018 and 2017

Net sales

Net sales of $200.2 million for the three months ended September 30, 2018, increased $6.7 million, or 3%, as compared to the three months ended September 30, 2017. Animal Health, Mineral Nutrition and Performance Products grew $2.3 million, $2.8 million and $1.6 million, respectively.

Animal Health

Net sales of $131.2 million for the three months ended September 30, 2018, grew $2.3 million, or 2%. Net sales of MFAs and other increased $7.4 million, or 9%, driven by continued international volume growth, particularly in the cattle sector. Reduced selling prices in certain countries due to unfavorable exchange rate movements partially offset the international volume growth. Net sales of domestic MFAs and other also contributed to the growth. Net sales of nutritional specialty products declined by $3.8 million, or 12%, primarily due to volume declines from the continued negative dairy industry conditions, while sales to the poultry sector were approximately even with the prior year. Net sales of vaccines declined $1.2 million, or 7%, due to turbulent economic conditions in certain international countries and the timing of certain vaccine orders in the prior year.

Mineral Nutrition

Net sales of $54.8 million increased $2.8 million, or 5%, for the three months ended September 30, 2018. Higher average selling prices related to increased commodity prices were the primary driver of the increased revenue. Our selling prices of mineral nutrition products generally move in direct correlation with the underlying commodity costs. Net sales also declined in part due to reduced volumes due to the competitive nature of the business.

Performance Products

Net sales of $14.1 million increased $1.6 million, or 13%, for the three months ended September 30, 2018, due to higher unit volumes of copper-based products coupled with higher average selling prices of certain industrial chemical products.

Gross profit

Gross profit of $65.8 million for the three months ended September 30, 2018, increased $2.4 million, or 4%, as compared to the three months ended September 30, 2017. Gross profit increased to 32.9% of net sales for the three months ended September 30, 2018, as compared to 32.8% for the three months ended September 30, 2017. Animal Health gross profit increased $3.0 million due to volume growth and favorable unit costs and product mix in MFAs and other, partially offset by volume declines of nutritional specialty products. Mineral Nutrition gross profit decreased $1.2 million, primarily due to unfavorable product mix and constrained pricing in a competitive environment. Performance Products gross profit increased $0.4 million, primarily due to increased volumes and favorable manufacturing costs. Gross profit increased $0.2 million due to acquisition-related cost of goods sold included in the three months ended September 30, 2017.

Selling, general and administrative expenses

Selling, general and administrative expenses (“SG&A”) of $43.0 million for the three months ended September 30, 2018, increased $2.0 million, or 5%, as compared to the three months ended September 30, 2017. SG&A for the three months ended September 30, 2018, included $0.6 million of stock-based compensation. SG&A for the three months ended September 30, 2017, included $0.4 million in acquisition-related transaction costs and $0.4 million in acquisition-related compensation costs. Excluding the effects of these costs, SG&A increased $2.3 million, or 6%.

Animal Health SG&A increased $1.1 million, driven by sales force expansion and increased investments in marketing and product development. Mineral Nutrition and Performance Products SG&A costs were even with the prior year. Corporate costs increased $1.2 million due to increased business development expenses and higher professional fees. The stock-based compensation, acquisition-related transaction costs and acquisition-related compensation costs resulted in a $0.3 million net decrease in SG&A compared to the prior year.

Interest expense, net

Interest expense, net of $2.8 million for the three months ended September 30, 2018, decreased $0.3 million, or 11%, as compared to the three months ended September 30, 2017. Interest expense decreased $0.2 million compared to the prior year, primarily due to the extinguishment of acquisition-related obligations. Interest income increased $0.1 million due to earnings on short-term investments.

Foreign currency (gains) losses, net

Foreign currency (gains) losses, net for the three months ended September 30, 2018, amounted to net gains of $2.6 million, as compared to $0.3 million in net losses for the three months ended September 30, 2017. Foreign currency net gains in the three months ended September 30, 2018, were primarily due to the movement of the Turkish, Mexican and Brazilian currencies relative to the U.S. dollar. Foreign currency gains and losses primarily arose from cash and intercompany balances.

Provision for income taxes

The provision for income taxes was $6.4 million and $3.1 million for the three months ended September 30, 2018 and 2017, respectively. The effective income tax rate was 28.1% and 16.1% for the three months ended September 30, 2018 and 2017, respectively. The provision for income taxes included a benefit from the exercise of employee stock options of $0.2 million and $2.7 million for the three months ended September 30, 2018 and 2017, respectively. The effective income tax rate, without the benefit of the employee stock option exercises, would have been 28.8% and 30.6% for the three months ended September 30, 2018 and 2017, respectively. The provision for income taxes included a U.S. federal statutory tax rate of 21% and 35% for the three months ended September 30, 2018 and 2017, respectively. The provision for income taxes for the three months ended September 30, 2018, also included a $0.3 million provision for the U.S. federal Global Intangible Low-taxed Income (GILTI) aspects of the comprehensive U.S. income tax legislation.

Net income

Net income of $16.3 million for the three months ended September 30, 2018, increased $0.4 million, as compared to net income of $15.9 million for the three months ended September 30, 2017. Increased operating income of $0.5 million, lower interest expense of $0.3 million and increased foreign exchange gains of $3.0 million resulted in a $3.8 million increase in income before income taxes. The provision for income taxes increased by $3.3 million, primarily due to a reduced benefit from the exercise of employee stock options of $2.5 million and increased taxes related to the higher pre-tax income; the reduced U.S. federal statutory tax rate in the current year partially offset the increases.

Adjusted EBITDA

Adjusted EBITDA of $30.1 million for the three months ended September 30, 2018, was even with the three months ended September 30, 2017. Animal Health Adjusted EBITDA increased $2.0 million, or 6%, due to sales growth and increased gross profit, partially offset by increased SG&A for investments in organization and business development. Mineral Nutrition Adjusted EBITDA decreased $1.2 million, or 31%, due to the effect of unfavorable product mix and pricing pressures on gross profit. Performance Products Adjusted EBITDA increased $0.5 million, due to increased gross profit. Corporate expenses increased $1.2 million due to increased business development expenses and higher professional fees.

Analysis of financial condition, liquidity and capital resources

Net increase (decrease) in cash and cash equivalents was:

For the Periods Ended September 30	Three Months 2018	2017	Change
		(in thousands)	
Cash provided by/(used in):			
Operating activities	$ 1,280	$ 4,803	$(3,523)
Investing activities	(16,149)	(16,832)	683
Financing activities	11,734	17,845	(6,111)
Effect of exchange-rate changes on cash and cash equivalents	(173)	198	(371)
Net increase/(decrease) in cash and cash equivalents	$ (3,308)	$ 6,014	$(9,322)

Net cash provided (used) by operating activities was comprised of:

For the Periods Ended September 30	Three Months 2018	2017	Change
		(in thousands)	
EBITDA	$ 32,179	$ 28,706	$ 3,473
Adjustments			
Stock-based compensation	565	—	565
Acquisition-related cost of goods sold	—	249	(249)
Acquisition-related accrued compensation	—	437	(437)
Acquisition-related transaction costs	—	400	(400)
Foreign currency (gains) losses, net	(2,635)	325	(2,960)
Interest paid	(2,732)	(2,679)	(53)
Income taxes paid	(5,817)	(4,039)	(1,778)
Changes in operating assets and liabilities and other items	(20,280)	(18,196)	(2,084)
Cash used for acquisition-related transaction costs	—	(400)	400
Net cash provided (used) by operating activities	$ 1,280	$ 4,803	$(3,523)

Certain amounts may reflect rounding adjustments.

Operating activities

Net cash provided by operating activities was $1.3 million for the three months ended September 30, 2018. Cash provided by net income and non-cash items, including depreciation and amortization and foreign exchange gains, was largely offset by cash used in the ordinary course of business for changes in operating assets and liabilities and other items. Increased inventories used $9.5 million of cash due to the timing of sales, purchases and production. Accounts payable provided $2.8 million of cash, primarily related to the timing of inventory purchases. Accrued expenses and other liabilities used $9.2 million of cash primarily due to annual incentive compensation payments related to the previous fiscal year.

Investing activities

Net cash used in investing activities was $16.1 million for the three months ended September 30, 2018. Cash used for business acquisitions was $9.8 million. Capital expenditures were $6.0 million as we continued to invest in our existing asset base and for capacity expansion and productivity improvements. Other investing activities used $0.3 million of cash.

Financing activities

Net cash provided by financing activities was $11.7 million for the three months ended September 30, 2018. Net borrowings on our Revolver provided $15.0 million. We partially financed an acquisition of a business through the issuance of a $3.8 million short-term note payable. We received $0.2 million from the issuance of common shares related to the exercise of stock options. We paid $4.0 million in dividends to holders of our Class A and Class B common stock. We paid $3.2 million in scheduled debt and other requirements.

Liquidity and capital resources

We believe our cash on hand, our operating cash flows and our financing arrangements, including the availability of borrowings under the Revolver and foreign credit lines, will be sufficient to support our future cash needs. Our operating plan projects adequate liquidity throughout the year. However, we can provide no assurance that our liquidity and capital resources will be adequate for future funding requirements. We believe we will be able to comply with the terms of the covenants under the Credit Facilities and foreign credit lines based on our operating plan. In the event of adverse operating results and/or violation of covenants under the facilities, there can be no assurance we would be able to obtain waivers or amendments. Other risks to our meeting future funding requirements include global economic conditions and macroeconomic, business and financial disruptions that could arise. There can be no assurance that a challenging economic environment or an economic downturn would not impact our liquidity or our ability to obtain future financing. In addition, our debt covenants may restrict our ability to invest.

Certain relevant measures of our liquidity and capital resources follow:

As of	**September 30, 2018**	**June 30, 2018**	**Change**
	(in thousands, except ratios)		
Cash and cash equivalents and short-term investments	$ 75,860	$ 79,168	$ (3,308)
Working capital	227,782	205,651	22,431
Ratio of current assets to current liabilities	2.96:1	2.57:1	

We define working capital as total current assets (excluding cash and cash equivalents and short-term investments) less total current liabilities (excluding the current portion of long-term debt). We calculate the ratio of current assets to current liabilities based on this definition.

At September 30, 2018, we had $85.0 million in outstanding borrowings under the Revolver. We had outstanding letters of credit and other commitments of $4.2 million, leaving $160.8 million available for borrowings and letters of credit.

On November 5, 2018, our Board of Directors declared a cash dividend of $0.12 per share on each share of our Class A and Class B common stock outstanding on the record date of November 28, 2018, payable on December 19, 2018. The December 2018 quarterly dividend is a 20% increase over the $0.10 per share quarterly dividend declared and paid previously. We expect to pay future quarterly dividends of $0.12 per share on our Class A and Class B common stock, representing approximately $19.4 million annually, subject to approval from the Board of Directors.

At September 30, 2018, our cash and cash equivalents and short-term investments included $74.3 million held by our international subsidiaries. There are no restrictions on cash distributions to PAHC from our international subsidiaries.

Contractual obligations

As of September 30, 2018, there were no material changes in payments due under contractual obligations from those disclosed in the Annual Report on Form 10-K for the year ended June 30, 2018.

Off-balance sheet arrangements

We do not currently use off-balance sheet arrangements for the purpose of credit enhancement, hedging transactions, investment or other financial purposes.

In the ordinary course of business, we may indemnify our counterparties against certain liabilities that may arise. These indemnifications typically pertain to environmental matters. If the indemnified party were to make a successful claim pursuant to the terms of the indemnification, we would be required to reimburse the loss. These indemnifications generally are subject to certain restrictions and limitations.

General description of non-GAAP financial measures

Adjusted EBITDA

Adjusted EBITDA is an alternative view of performance used by management as our primary operating measure, and we believe that investors' understanding of our performance is enhanced by disclosing this performance measure. We report Adjusted EBITDA to portray the results of our operations prior to considering certain income statement elements. We have defined EBITDA as net income (loss) plus (i) interest expense, net, (ii) provision for income taxes or less benefit for income taxes, and (iii) depreciation and amortization. We have defined Adjusted EBITDA as EBITDA plus (a) (income) loss from, and disposal of, discontinued operations, (b) other expense or less other income, as separately reported on our consolidated statements of operations, including foreign currency gains and losses and loss on extinguishment of debt, and (c) certain items that we consider to be unusual, non-operational or non-recurring. The Adjusted EBITDA measure is not, and should not be viewed as, a substitute for GAAP reported net income.

The Adjusted EBITDA measure is an important internal measurement for us. We measure our overall performance on this basis in conjunction with other performance metrics. The following are examples of how our Adjusted EBITDA measure is utilized:

- senior management receives a monthly analysis of our operating results that is prepared on an Adjusted EBITDA basis;
- our annual budgets are prepared on an Adjusted EBITDA basis; and
- other goal setting and performance measurements are prepared on an Adjusted EBITDA basis.

Despite the importance of this measure to management in goal setting and performance measurement, Adjusted EBITDA is a non-GAAP financial measure that has no standardized meaning prescribed by GAAP and, therefore, has limits in its usefulness to investors. Because of its non-standardized definition, Adjusted EBITDA, unlike GAAP net income, may not be comparable to the calculation of similar measures of other companies. Adjusted EBITDA is presented to permit investors to more fully understand how management assesses performance.

We also recognize that, as an internal measure of performance, the Adjusted EBITDA measure has limitations, and we do not restrict our performance management process solely to this metric. A limitation of the Adjusted EBITDA measure is that it provides a view of our operations without including all events during a period, such as the depreciation of property, plant and equipment or amortization of purchased intangibles, and does not provide a comparable view of our performance to other companies.

Certain significant items

Adjusted EBITDA is calculated prior to considering certain items. We evaluate such items on an individual basis. Such evaluation considers both the quantitative and the qualitative aspect of their unusual or non-operational nature. Unusual, in this context, may represent items that are not part of our ongoing business; items that, either as a result of their nature or size, we would not expect to occur as part of our normal business on a regular basis. We consider foreign currency gains and losses to be non-operational because they arise principally from intercompany transactions and are largely non-cash in nature.

New accounting standards

For discussion of new accounting standards, see "Notes to Consolidated Financial Statements—Summary of Significant Accounting Policies and New Accounting Standards."

Critical Accounting Policies

Critical accounting policies are those that require application of management's most difficult, subjective or complex judgments, often as a result of the need to make estimates about the effect of matters that are inherently uncertain and may change in subsequent periods. Not all of these significant accounting policies require management to make difficult, subjective or complex judgments or estimates. However, management is required to make certain estimates and assumptions during the preparation of consolidated financial statements in accordance with accounting principles generally accepted in the United States of America. Significant estimates include depreciation and amortization periods of long-lived and intangible assets, recoverability of long-lived and intangible assets and goodwill, realizability of deferred income tax and value-added tax assets, legal and environmental matters and actuarial assumptions related to our pension plans. These estimates and assumptions impact the reported amount of assets and liabilities and disclosures of contingent assets and liabilities as of the date of the consolidated financial statements. Estimates and assumptions are reviewed periodically and the effects of revisions are reflected in the period they are determined to be necessary. Actual results could differ from those estimates. Our significant accounting policies are described in the notes to the consolidated financial statements included in the Annual Report. As of September 30, 2018, there have been no material changes to any of the critical accounting policies contained therein, except for the adoption of the new standard related to revenue recognition. See "Notes to Consolidated Financial Statements—Summary of Significant Accounting Policies and New Accounting Standards" for the changes made to our revenue recognition policy, following the adoption of Financial Accounting Standards Board Accounting Standards Update 2014-09, *Revenue from Contracts with Customers (Topic 606).*

Forward-Looking Statements

This report contains forward-looking statements that are subject to risks and uncertainties. All statements other than statements of historical or current fact included in this report are forward-looking statements. Forward-looking statements discuss our current expectations and projections relating to our financial condition, results of operations, plans, objectives, future performance and business. You can identify forward-looking statements by the fact that they do not relate strictly to historical or current facts. These statements may include words such as "aim," "anticipate," "believe," "estimate," "expect," "forecast," "outlook," "potential," "project," "projection," "plan," "intend," "seek," "believe," "may," "could," "would," "will," "should," "can," "can have," "likely," the negatives thereof and other words and terms of similar meaning in connection with any discussion of the timing or nature of future operating or financial performance or other events. For example, all statements we make relating to our estimated and projected earnings, revenues, costs, expenditures, cash flows, growth rates and financial results, our plans and objectives for future operations, growth or initiatives, strategies, or the expected outcome or impact of pending or threatened litigation are forward-looking statements. All forward-looking statements are subject to risks and uncertainties that may cause actual results to differ materially from those that we expected. Examples of such risks and uncertainties include:

- perceived adverse effects on human health linked to the consumption of food derived from animals that utilize our products could cause a decline in the sales of those products;
- restrictions on the use of antibacterials in food-producing animals may become more prevalent;
- a material portion of our sales and gross profits are generated by antibacterials and other related products;
- competition in each of our markets from a number of large and small companies, some of which have greater financial, research and development ("R&D"), production and other resources than we have;
- outbreaks of animal diseases could significantly reduce demand for our products;
- our business may be negatively affected by weather conditions and the availability of natural resources;
- the continuing trend toward consolidation of certain customer groups as well as the emergence of large buying groups;
- our ability to control costs and expenses;
- any unforeseen material loss or casualty;
- exposure relating to rising costs and reduced customer income;
- competition deriving from advances in veterinary medical practices and animal health technologies;
- unanticipated safety or efficacy concerns;
- our dependence on suppliers having current regulatory approvals;
- our raw materials are subject to price fluctuations and their availability can be limited;
- natural and man-made disasters, including but not limited to fire, snow and ice storms, flood, hail, hurricanes and earthquakes;
- terrorist attacks, particularly attacks on or within markets in which we operate;
- our ability to successfully implement our strategic initiatives;
- our reliance on the continued operation of our manufacturing facilities and application of our intellectual property;
- adverse U.S. and international economic market conditions, including currency fluctuations;
- failure of our product approval, R&D, acquisition and licensing efforts to generate new products;
- the risks of product liability claims, legal proceedings and general litigation expenses;
- the impact of current and future laws and regulatory changes;
- modification of foreign trade policy may harm our food animal product customers
- our dependence on our Israeli and Brazilian operations;
- our substantial level of indebtedness and related debt-service obligations;
- restrictions imposed by covenants in our debt agreements;

- the risk of work stoppages; and
- other factors as described in “Risk Factors” in Item 1A. of this Annual Report on Form 10-K.

While we believe that our assumptions are reasonable, we caution that it is very difficult to predict the impact of known factors, and it is impossible for us to anticipate all factors that could affect our actual results. Important factors that could cause actual results to differ materially from our expectations, or cautionary statements, are disclosed under “Risk Factors” and “Management’s Discussion and Analysis of Financial Condition and Results of Operations.” All forward-looking statements are expressly qualified in their entirety by these cautionary statements. You should evaluate all forward-looking statements made in this report in the context of these risks and uncertainties.

We caution you that the important factors referenced above may not contain all of the factors that are important to you. In addition, we cannot assure you that we will realize the results or developments we expect or anticipate or, even if substantially realized, that they will result in the consequences we anticipate or affect us or our operations in the way we expect. The forward-looking statements included in this report are made only as of the date hereof. We undertake no obligation to publicly update or revise any forward-looking statement as a result of new information, future events or otherwise, except as otherwise required by law. If we do update one or more forward-looking statements, no inference should be made that we will make additional updates with respect to those or other forward-looking statements.

Item 3. Quantitative and Qualitative Disclosures about Market Risk

In the normal course of operations, we are exposed to market risks arising from adverse changes in interest rates, foreign currency exchange rates and commodity prices. As a result, future earnings, cash flows and fair values of assets and liabilities are subject to uncertainty. We use, from time to time, foreign currency contracts and interest rate swaps as a means of hedging exposure to foreign currency risks and fluctuating interest rates, respectively. We also utilize, on a limited basis, certain commodity derivatives, primarily on copper used in manufacturing processes, to hedge the cost of anticipated purchase or supply requirements. We do not utilize derivative instruments for trading or speculative purposes. We do not hedge our exposure to market risks in a manner that completely eliminates the effects of changing market conditions on earnings, cash flows and fair values. We monitor the financial stability and credit standing of our major counterparties.

For financial market risks related to changes in interest rates, foreign currency exchange rates and commodity prices, reference is made to the “Management’s Discussion and Analysis of Financial Condition and Results of Operations—Qualitative and Quantitative Disclosures about Market Risk” section in the Annual Report and to the notes to the consolidated financial statements included therein. There were no material changes in the Company’s financial market risks from the risks disclosed in the Annual Report.

Item 4. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

An evaluation was carried out under the supervision and with the participation of the Company’s management, including our Chief Executive Officer and Chief Financial Officer, of the effectiveness of the design and operation of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934 (the “Exchange Act”)). Based upon that evaluation as of September 30, 2018, our Chief Executive Officer and Chief Financial Officer each concluded that, as of the end of such period, our disclosure controls and procedures were not effective because of material weaknesses in our internal control over financial reporting, as described in Management’s Report on Internal Control over Financial Reporting in “Item 9A. Controls and Procedures” in the Annual Report on Form 10-K for the year ended June 30, 2018.

Material Weakness Remediation Efforts

We continue to make further progress in implementing a broad range of changes to strengthen our internal control over financial reporting and to remediate the material weaknesses that existed as of June 30, 2018. Our actions to address material weaknesses have included the design and implementation of additional formal accounting policies and procedures to ensure transactions are properly initiated, recorded, processed, reported, appropriately authorized and approved. Also, our efforts to ensure maintenance of the appropriate level of segregation of duties includes restricting access to key financial systems and records to appropriate users. We have decreased the level of segregation of duties conflicts and continue to determine the extent it is necessary to limit access and modify responsibilities of certain personnel, as well as designing and implementing additional user access controls and compensating controls. We will continue to build on the progress we have made in our remediation plan. We cannot determine when our remediation plan will be fully completed, and we cannot provide any assurance that these remediation efforts will be successful or that our internal control over financial reporting will be effective as a result of these efforts.

Changes in Internal Control over Financial Reporting

There have been no changes in internal control over financial reporting during the three months ended September 30, 2018 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART II—OTHER INFORMATION

Item 1. Legal Proceedings

Information required by this Item is incorporated herein by reference to “Notes to the Consolidated Financial Statements—*Commitments and Contingencies*” in Part I, Item 1, of this Quarterly Report on Form 10-Q.

Item 1A. Risk Factors

In addition to the other information set forth in this Quarterly Report on Form 10-Q, you should carefully consider the factors discussed in the “Risk Factors” section in the Annual Report, which could materially affect our business, financial condition or future results.

There were no material changes in the Company’s risk factors from the risks disclosed in the Annual Report.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds

None.

Item 3. Defaults Upon Senior Securities

None.

Item 4. Mine Safety Disclosures

None.

Item 5. Other Information

None.

Item 6. Exhibits

Exhibit 10.18* First Amendment, dated July 31, 2018 to the Intellectual Property Purchase Agreement, drafted as of January 20, 2015, by and among MJ Biologics, Inc. and Phibro Animal Health Corporation

Exhibit 31.1 Chief Executive Officer—Certification pursuant to Sarbanes-Oxley Act of 2002 Section 302

Exhibit 31.2 Chief Financial Officer—Certification pursuant to Sarbanes-Oxley Act of 2002 Section 302

Exhibit 32.1 Chief Executive Officer—Certification pursuant to Sarbanes-Oxley Act of 2002 Section 906

Exhibit 32.2 Chief Financial Officer—Certification pursuant to Sarbanes-Oxley Act of 2002 Section 906

Exhibit 101.INS** XBRL Instance Document

Exhibit 101.SCH** XBRL Taxonomy Extension Schema Document

Exhibit 101.CAL** XBRL Taxonomy Extension Calculation Linkbase Document

Exhibit 101.DEF** XBRL Taxonomy Extension Definition Linkbase Document

Exhibit 101.LAB** XBRL Taxonomy Extension Label Linkbase Document

Exhibit 101.PRE** XBRL Taxonomy Extension Presentation Linkbase Document

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* Confidential treatment of certain provisions of this exhibit has been requested with the Securities and Exchange Commission. Omitted material for which confidential treatment has been requested has been filed separately with the Securities and Exchange Commission.

** Furnished with this Quarterly Report. Pursuant to Rule 406T of Regulation S-T, these interactive data files are deemed not filed or part of a registration statement or prospectus for purposes of sections 11 or 12 of the Securities Act of 1933 and are deemed not filed for purposes of section 18 of the Exchange Act.

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 thereunto duly authorized.

		Phibro Animal Health Corporation
November 6, 2018	By:	/s/ Jack C. Bendheim
		Jack C. Bendheim Chairman, President and Chief Executive Officer
November 6, 2018	By:	/s/ Richard G. Johnson
		Richard G. Johnson Chief Financial Officer

Exhibit 10.18

CONFIDENTIAL TREATMENT REQUESTED UNDER
17 C.F.R. SECTIONS 200.80(b)(4), 200.83 AND 230.24b-2.

[*****] INDICATES OMITTED MATERIAL THAT IS THE
SUBJECT OF A CONFIDENTIAL TREATMENT REQUEST
FILED SEPARATELY WITH THE COMMISSION.

THE OMITTED MATERIAL HAS BEEN FILED
SEPARATELY WITH THE COMMISSION.

CONFIDENTIAL

Execution Version

FIRST AMENDMENT TO INTELLECTUAL PROPERTY PURCHASE AGREEMENT

This FIRST AMENDMENT TO INTELLECTUAL PROPERTY PURCHASE AGREEMENT (this " ***First Amendment***") is dated as of July 31, 2018, by and between Phibro Animal Health Corporation, a Delaware corporation ("***Purchaser***"), MJ Biologics, Inc., a Minnesota corporation ("***Seller***"), and, for the limited purposes set forth in Section 8 hereof, William Marks, an individual ("***Marks***"). Each of the foregoing may be individually or collectively referred to herein as a "***Party***" or "***Parties***," where appropriate. Defined terms used but not otherwise defined herein shall have the respective meanings ascribed to such terms as are set forth in that certain Intellectual Property Purchase Agreement, dated January 20, 2015, by and between Seller and Purchaser (the "***IPPA***").

RECITALS

WHEREAS, Seller and Purchaser are parties to the IPPA which provides for, among other things, the sale by Seller, and the purchase by Purchaser, of the Purchased Assets for the Purchase Price;

WHEREAS, pursuant to the IPPA, and assuming an Early Closing was not triggered, the Parties had agreed that the consummation of the transactions contemplated by the IPPA would occur on the first business day in 2021 (the "***Scheduled Closing Date***");

WHEREAS, the Parties agree it is in their respective best interests to amend and restate the definition of "Scheduled Closing Date" to advance the date of the Scheduled Closing Date to July 31, 2018 (the "***Closing Date Amendment***"), subject to the terms and conditions of this First Amendment;

WHEREAS, the Parties intend to effect the Closing Date Amendment, as well as certain other amendments to the IPPA and newly agreed upon terms and conditions set forth herein, pursuant to this First Amendment;

NOW, THEREFORE, in consideration of the mutual promises and such other good and lawful consideration, the receipt and sufficiency of which is acknowledged, the Parties, intending to be legally bound, and with the foregoing recitals being incorporated into this First Amendment by reference, agree that the IPPA is hereby amended, and the rights and responsibilities of the Parties are otherwise hereby clarified and confirmed, as follows:

1. **New IPPA Sections**. The following new provisions shall be added to the IPPA as though the following were made an original part thereof:

A. ARTICLE 1 DEFINITIONS shall be amended to include the following new definition:

""2019 Note" shall mean that certain Promissory Note issued on the Closing Date by the Purchaser in favor of the Seller in the original principal amount of $3,775,000.00, in the form attached to this First Amendment as Exhibit A."

""First Amendment" shall mean that certain First Amendment to Intellectual Property Purchase Agreement, dated July 31, 2018, by and between the Seller and the Purchaser."

B. Section 2.1 (Sale and Transfer of Purchased Assets) shall be amended to include the following new subsection (h):

"(h) the following domain name(s)/uniform resource locator(s): mjbiologics.com, mjbio.com, and any and all other domain names/uniform resource locators, owned, leased or otherwise used in the Business."

C. Section 9.2(b) (Performance by Purchaser) shall be amended to include the following new subsection (vii):

"(vii) a fixed-term consulting agreement by and between Purchaser and BKYH, LLC, in the form attached hereto as Exhibit 9.2(b)(vii), pursuant to which Kim and Yun-Kyeong Kim shall provide certain services to Purchaser as more fully set out therein."

D. Article 12 (General Provisions) shall be amended to include the following new Section 12.18 (Marks Office Use):

"*Marks Office Use. Purchaser agrees that Marks shall have the right personally to use his individual office space in the Premises (as defined in that certain Lease dated January 20, 2005 by and between Seller, as the tenant, and the City of Mankato, Minnesota, as the landlord, as amended) until September 1, 2018, by which time Marks must vacate the Premises.*"

2. **Deleted IPPA Sections**. The following Sub-sections of Article I (Definitions) of the IPPA shall be deleted in their entirety as though the following were never made an original part thereof:

A. ARTICLE 1 DEFINITIONS shall delete the following definitions:

""Business Related Services" shall have the meaning set forth in Section 2.2(a)(ii)(G)."

""Early Closing Payment" shall have the meaning set forth in Section 2.2(a)(ii)(C) hereof."

""Minimum Service Period" shall have the meaning set forth in Section 2.2(a)(ii)(G) hereof."

3. **Amended and Restated IPPA Sections**. The following Sections of the IPPA shall be amended and restated in the IPPA as though the following were made an original part thereof:

A. Section 2.2 (Purchase Price) is amended and restated as set forth on Exhibit B hereof.

B. Schedule 2.4 (Allocation) is amended and restated as set forth on Exhibit C hereof.

C. Section 7.9 (Repayment of Loan) is amended and restated as follows:

"*Repayment of Loan. All amounts due and payable under the Note shall have been paid in full or shall be paid in full at Closing. In the event Marks fails to repay all amounts due and payable under the Note prior to or at Closing, at Purchaser's election, Purchaser may transfer the Note to Seller at Closing and deduct such amounts in full from the Closing Payment that is otherwise required to be made to Seller pursuant to Section 2.2(a)(ii).*"

D. Section 9.1(a) (Time and Place of Closing) is amended and restated as follows:

"(a) The consummation of the transactions provided for in this Agreement (the "Closing") shall be held at the offices of Purchaser (or as otherwise agreed between the parties hereto), on July 31, 2018 (the "Scheduled Closing Date"), unless another place or date is agreed to in writing by Seller and Purchaser (the actual date of Closing shall be the "Closing Date"). The Closing shall be deemed to have been consummated as of 12:01 a.m. on July 31, 2018."

E. Section 9.2(b)(i) (Performance by Purchaser) is amended and restated as follows:

"(i) the Closing Payment (as calculated and paid in accordance with Section 2.2(b) hereof). "

4. **Amended IPPA Sections**. The following amendment shall be made to the IPPA as though the following were made an original part thereof:

A. The definition of "*Transaction Documents*" in Article 1 (Definitions) shall be amended to include a reference to the "2019 Note" among the list of documents described therein.

B. The second sentence of Section 10.4 (Limitation to Seller's Indemnification Obligations; Escrow Funds; Escrow Agent; Escrow Agreement) is amended as follows:

"Subject to the terms and conditions of this Agreement, at Closing, Purchaser shall pay and deliver One Million Dollars ($1,000,000) (the "Escrow Funds")…"

C. Section 10.6 (Right to Set-Off) is amended as follows:

"*Right of Set-off. In the event a Purchaser Indemnitee suffers an indemnifiable Loss as provided for hereunder, including Losses related to Undisclosed Liabilities, Excluded Liabilities and amounts deductible pursuant to Section 2.2(a)(ii)(B), Purchaser shall have the right, upon written notice, to Set-off such Loss against future payments under the Transaction Documents, including Earn-Out Payments.*"

5. **Confirmation of final Base Payment, Final Accumulated Deficit Amount and Joint Reserve Fund Amount**. For the avoidance of doubt, the Parties hereby confirm their agreement as set forth in the Collaboration Agreement, as follows:

A. The final Base Payment under the Collaboration Agreement was paid in full on or prior to the Closing Date, without pro-ration.

B. As of the Closing Date, the accumulated Deficit Amount is [*****].

C. As of the Closing Date, Seller's 50% share of the final total amount in the Joint Reserve Fund is [*****].

D. The Purchased Assets to be transferred to Purchaser at Closing shall include all products, supplies, and inventory; all laboratory tools, equipment, and peripherals; and all computers and software related to the Business, including ultra freezers and complete inventory of PRRSv seeds and cell lines. The Icellis machines located at Seller's laboratory were previously funded, and are already owned by, Purchaser.

6. **Confirmation of Closing**. Notwithstanding the obligation of Purchaser to satisfy the 2019 Note, the parties agree that the Closing shall occur on July 31, 2018, at which such time, all of Seller's right, title and interest in and to the Purchased Assets shall transfer to Purchaser free and clear of all Encumbrances (other than Permitted Encumbrances).

7. **Disclosure Schedules**. Attached hereto as Exhibit D are updated Disclosure Schedules required to be delivered at Closing pursuant to Section 3.16 of the IPPA.

8. **Limited Release**. Except for the obligations relating to the payment of the Closing Payment (including the 2019 Note), Earn-Out, release of the Escrow Funds, and Losses indemnified pursuant to Article 10 of the IPPA (which are not otherwise released pursuant this Section 8), at Closing, (a) each of Seller and Marks (for itself and on behalf of its successors and assigns, as applicable) hereby releases, remises and forever discharges the Purchaser (and all predecessors, successors and assigns of the Purchaser, and its directors, officers, employees,

owners, agents and representatives) of and from any and all actions, causes of action, suits, claims, demands, agreements, debts, liabilities and obligations of any nature, fixed or contingent, known or unknown, whether at law or in equity, by reason of any event, occurrence, circumstances or matter of any nature with respect to any and all amounts that were, are, or may in the future be due to Seller and/or Marks from Purchaser pursuant to the First Amendment, the IPPA, any Transaction Documents, or any other obligation contemplated by the transactions related thereto, including, without limitation, any and all amounts due in connection with any Collaboration Plan, Designated Employee, MJ Cost of Goods or Transfer Payment (except as such Transfer Payment may relate, directly or indirectly, to the Deficit Amount) (as such obligations are described in the Collaboration Agreement); and (b) Purchaser (for itself and on behalf of its successors and assigns, as applicable) hereby releases, remises and forever discharges Seller and Marks (and all predecessors, successors and assigns of Seller, Marks, and their respective directors, officers, employees, owners, agents and representatives) of and from any and all actions, causes of action, suits, claims, demands, agreements, debts, liabilities and obligations of any nature, fixed or contingent, known or unknown, whether at law or in equity, by reason of any event, occurrence, circumstances or matter of any nature with respect to any and all amounts that were, are, or may in the future be due to Purchaser from Seller and/or Marks pursuant to the First Amendment, the IPPA, any Transaction Documents, or any other obligation contemplated by the transactions related thereto, including, without limitation, any and all amounts due in connection with any Collaboration Plan, Designated Employee, MJ Cost of Goods or Transfer Payment (except as such Transfer Payment may relate, directly or indirectly, to the Deficit Amount) (as such obligations are described in the Collaboration Agreement).

9. **No Early Closing**. For the avoidance of doubt, the parties hereto acknowledge and agree that (a) the Closing contemplated to occur on the Scheduled Closing Date pursuant to this First Amendment is not the "Early Closing" as defined in the IPPA; and (b) no Trigger Breach or Trigger Event has occurred or is continuing.

10. **No Other Amendments or Revisions, Conflicts**. Except as specifically amended by this First Amendment, the IPPA shall remain in full force and effect. In the event of any conflict between the IPPA and this First Amendment, this First Amendment shall control and prevail.

[Signature Page to Follow; Remainder of This Page Is Intentionally Left Blank]

IN WITNESS WHEREOF, intending to be legally bound hereby, the Parties have executed or caused this Amendment Agreement to be duly executed as of the date first noted above.

PHIBRO ANIMAL HEALTH CORPORATION

By: /s/ Larry L. Miller
Name: Larry L. Miller
Title: Chief Operating Officer

/s/ William Marks
William Marks, in his individual capacity

MJ BIOLOGICS, INC.

By: /s/ William Marks
Name: William Marks
Title: President & CEO

[Signature Page to First Amendment to IPPA (July 2018 - Phibro/MJB)]]

<u>Exhibit A</u>

2019 Promissory Note

THIS NOTE AND THE SECURITIES REPRESENTED HEREBY HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "ACT"). THEY MAY NOT BE SOLD, OFFERED FOR SALE, PLEDGED OR HYPOTHECATED IN THE ABSENCE OF AN EFFECTIVE REGISTRATION STATEMENT AS TO THE SECURITIES UNDER THE ACT OR AN OPINION OF COUNSEL SATISFACTORY TO THE CORPORATION THAT SUCH REGISTRATION IS NOT REQUIRED.

PROMISSORY NOTE

$3,775,000.00 July 31, 2018

FOR VALUE RECEIVED, Phibro Animal Health Corporation, a Delaware corporation (referred to herein as "***Maker***"), promises to pay to the order of MJ Biologics, Inc., a Minnesota corporation (referred to herein as "***Payee***,"), the principal sum of Three Million Seven Hundred Seventy Five Thousand Dollars and No Cents ($3,775,000.00), together with interest until paid, as set forth in this Promissory Note (this "***Note***"). This Note is made pursuant to that certain Intellectual Property Purchase Agreement, dated January 20, 2015, by and between Maker and Payee (as amended by that certain First Amendment to Intellectual Property Purchase Agreement dated as of even date herewith, the "***Purchase Agreement***"). Capitalized terms not defined herein shall have the meanings ascribed to the in the Purchase Agreement, as amended.

1. <u>Payments of Interest and Principal</u>. All outstanding and unpaid principal of this Note, together with any then unpaid and accrued interest and other amounts payable hereunder, shall be due and payable on January 4, 2019 (the "***Maturity Date***"), unless the maturity is otherwise accelerated by the Payee as set forth herein. Any payment by the Maker shall be credited first to any costs incurred by the Payee hereunder, second to interest then due and payable hereunder and the remainder to principal hereunder.

2. <u>Interest Rate</u>. Interest shall accrue on the unpaid principal balance of this Note at the variable rate equal to (1) the one month London Interbank Offered Rate, reported on the tenth day of the month immediately preceding the first day of each month from August 1, 2018 through the Maturity Date (as defined herein) by the *Wall Street Journal* in its daily listing of money rates, defined therein as the Intercontinental Exchange Benchmark Administration Ltd average of interbank offered rates for dollar deposits in the London market; plus (2) 300 basis points (3.00%) (the "***Applicable Rate***"). All interest shall accrue based on a 360-day year for the actual number of days outstanding and shall be compounded monthly. In Payee's discretion, upon and after the occurrence of an Event of Default (as defined below in <u>Section 5</u>), interest shall accrue and be payable on the unpaid principal balance of this Note at the Applicable Rate in effect at and during such time plus six percent (6%).

3. <u>Manner of Payment; Prepayment</u>. Unless otherwise provided for herein, all payments shall be made in U.S. dollars in immediately available funds without set-off or counterclaim or deduction of any kind (except as such adjustments may be permitted pursuant to

Section 6 hereof) on the due dates of such payment(s). Payments shall be made to the address set forth herein for notices to Payee. Any payments by check shall be accepted subject to collection in immediately available funds. Maker may prepay this Note at any time and without penalty.

4. Collection Costs.

(a) Except for matters relating to Section 6 (Set-Off) hereof, Maker shall pay to Payee, within ten business days after Payee's request or demand for such payment, all amounts necessary to pay, or to reimburse Payee for, all costs and expenses of administering and enforcing this Note, including, without limitation, any and all costs and expenses of collecting the principal, interest, late charges, fees and expenses due under this Note and exercising Payee's rights and remedies under this Note in favor of Payee relating to this Note (collectively, "***Collection Costs***"). Collection Costs include, without limitation, all of Payee's reasonable attorney's fees and expenses of any kind incurred in administering, enforcing, or collecting this Note.

(b) If Maker shall fail to pay Collection Costs to Payee within ten business days after Payee's request or demand for such payment, and Payee shall have paid or advanced such Collection Costs (Payee being hereby authorized, but not obligated, to pay or advance such Collection Costs), Payee shall be entitled to add the amount so requested or demanded to the amount of principal outstanding under this Note and thereafter charge interest thereon at then effective Applicable Rate.

(c) For the avoidance of doubt, this Section 4 shall not apply to Collection Costs which may arise from costs and expenses which are related to the Maker's right to set-off as set forth in Section 6 hereof.

5. Default; Acceleration.

(a) The occurrence of any of the following shall be an "***Event of Default***": (i) the filing of any petition under the U.S. Bankruptcy Code or any similar federal or state statute by or against Maker; (ii) an application for the appointment of a receiver for the making of a general assignment for the benefit of creditors by, or the insolvency of, Maker; (iii) commencement of any proceeding under any Federal or state statute or rule providing for the relief of debtors, composition of creditors, arrangement, reorganization, receivership, liquidation or any similar event by or against Maker; (iv) the failure by Maker to pay any amount due under this Note within five (5) business days of the date such payment is due; or (v) the material breach by Maker of any other term or provision of this Note which is not cured within thirty (30) days of notice from Payee.

(b) Upon the occurrence of an Event of Default, and assuming the applicable cure period has expired, the entire principal amount hereof and any accrued but unpaid interest, together with any Collection Costs, shall immediately become due and payable upon written request from Payee to Maker.

6 . Set-off. Payment under the Note is expressly subject to the Maker's right pursuant to Section 10.6 of the Purchase Agreement (as amended) to offset any Losses related to Undisclosed Liabilities, Excluded Liabilities, and amounts deductible pursuant to Section 2.2(a)(ii)(B) pursuant to a final non-appealable judgment made by a court with competent jurisdiction against future payments due under the Transaction Documents (including this Note). Any amounts set-off hereunder pursuant to a final non-appealable judgment made by a court with competent jurisdiction shall act as a reduction in the original principal amount due under the Note together with a corresponding reduction in the amount of any interest accrued thereon.

7. Notices. All notices, requests, demands and other communications hereunder shall be in writing and shall be delivered by hand or mailed by registered or certified mail, return receipt requested, first class postage prepaid, addressed as follows:

If to Payee:	MJ Biologics, Inc. Attn: William Marks 1961 Premier Drive Mankato, MN 56001
If to Maker:	Phibro Animal Health Corporation. Glenpointe Centre East, 3rd Floor 300 Frank W. Burr Blvd., Suite 21 Teaneck, NJ 07666 Attn: President Telecopy No. (201) 329-7045
With a copy to: (which shall not constitute notice)	Phibro Animal Health Corporation. Glenpointe Centre East, 3rd Floor 300 Frank W. Burr Blvd., Suite 21 Teaneck, NJ 07666 Attn: General Counsel Telecopy No. (201) 329-7041

8 . Assignment. Subject to the restrictions in the legend to this Note, the Payee may assign or transfer this Note and/or any of its rights hereunder at any time and from time to time. The obligations of the Maker under this Note shall not be assigned, transferred or delegated without the prior written consent of the Payee.

9 . Certain Waivers. As to this Note, Maker waives all applicable exemption rights, whether under any state constitution, homestead laws or otherwise, and also waive valuation and appraisement, presentment, notice of dishonor, and protest, notice of demand and nonpayment of this Note, and notice of acceleration and expressly agrees that the maturity of this Note, or any payment under this Note, may be extended from time to time without in any way affecting the liability of Maker.

10. Preservation of Payee Rights. No failure on the part of Payee to exercise any right or remedy hereunder, whether before or after the happening of an Event of Default shall constitute a waiver thereof, and no waiver of any past Event of Default shall constitute waiver of any future default or of any other Event of Default. No failure to accelerate the indebtedness evidenced hereby by reason of any Event of Default hereunder, or acceptance of a past due payment, or indulgence granted from time to time, shall be construed to be a waiver of the right to insist upon prompt payment thereafter or to impose late charges retroactively or prospectively, or shall be deemed to be a novation of this Note or as a reinstatement of the indebtedness evidenced hereby or as a waiver of such right of acceleration or any other right, or be construed so as to preclude the exercise of any right that Payee may have, whether by the laws of the State of New York, by agreement, or otherwise; and Maker and each endorser or guarantor hereby expressly waives the benefit of any statute or rule of law or equity that would produce a result contrary to or in conflict with the foregoing.

11. Amendments. This Note may not be changed orally, but only by an agreement in writing signed by the party against whom such agreement is sought to be enforced.

12. Severability. In case any provision (or any part of any provision) contained in this Note shall for any reason be held to be invalid, illegal, or unenforceable in any respect, such invalidity, illegality, or unenforceability shall not affect any other provision (or remaining part of the affected provision) of this Note, but this Note shall be construed as if such invalid, illegal, or unenforceable provision (or part thereof) had never been contained herein but only to the extent such provision (or part thereof) is invalid, illegal, or unenforceable.

13. Governing Law. This Note shall be governed by the laws of the State of New York (excluding New York conflicts of laws rules).

14. Jurisdiction; Venue. Maker hereby irrevocably consents to the non-exclusive personal jurisdiction of the courts of the State of New York and, if a basis for federal jurisdiction exists, the non-exclusive jurisdiction of the United States District Court for the Southern District of the State of New York. Maker waives any right to object to the maintenance of any suit or claim in any of the state or federal courts of the State of New York on the basis of improper venue or of inconvenience of forum. Any suit or claim brought by Maker against Payee that is based, in whole or in part, directly or indirectly, on this Note or any matters relating to this Note, shall be brought in a court only in the State and City of New York.

15. Time. Time is of the essence of this Note.

16. Maximum Rate of Interest. Anything herein to the contrary notwithstanding, the obligations of Maker under this Note (or any other instrument, agreement or other document evidencing or securing the indebtedness evidenced by this Note) shall be subject to the limitation that payments of interest shall not be required to the extent that receipt of any such payment of interest by Payee would be contrary to provisions of law applicable to the indebtedness evidenced hereby (or applicable to Maker or Payee) limiting the maximum rate of interest that may be

charged or collected by Payee on this Note or the indebtedness evidenced hereby. Without limiting the generality of the foregoing, all calculations of the rate of interest contracted for, charged or received under this Note which are made for the purposes of determining whether such rate of interest exceeds the maximum rate of interest permitted by applicable law shall be made, to the extent permitted by applicable law, by amortizing, prorating, allocating and spreading in equal parts during the period of the full stated term of this Note, all interest at any time contracted for, charged or received in connection with the indebtedness evidenced by this Note, and then to the extent that any excess remains, all such excess shall be automatically credited against and in reduction of the principal balance, and any portion of said excess which exceeds that principal balance shall be paid by Payee to Maker, it being the intent of the parties hereto that under no circumstances shall Maker be required to pay any interest in excess of the highest rate permissible under applicable law.

17. MUTUAL WAIVER OF JURY TRIAL . MAKER AND PAYEE WAIVE ALL RIGHTS TO TRIAL BY JURY OF ANY CLAIMS OF ANY KIND ARISING UNDER OR RELATING IN ANY WAY TO THIS NOTE. MAKER AND PAYEE ACKNOWLEDGE THAT THIS IS A WAIVER OF A LEGAL RIGHT AND REPRESENT TO EACH OTHER THAT THESE WAIVERS ARE MADE KNOWINGLY AND VOLUNTARILY AFTER CONSULTATION WITH COUNSEL OF THEIR CHOICE. MAKER AND PAYEE AGREE THAT ALL SUCH CLAIMS SHALL BE TRIED BEFORE A JUDGE OF A COURT HAVING JURISDICTION, WITHOUT A JURY.

{signature page follows}

IN WITNESS WHEREOF, and intending to be legally bound hereby Maker executes this Note under seal as of the date first written above.

WITTNESS/ATTEST	PHIBRO ANIMAL HEALTH CORPORATION
______________________________	By: ______________________________
Name: ______________________________	Name: Larry L. Miller
	Title: Chief Operating Officer

[Signature Page to 2019 Promissory Note]

Exhibit B

Section 2.2. Amendment

Section 2.2 Purchase Price.

(a) In consideration of the sale, assignment, transfer, conveyance, and delivery of the Purchased Assets, Purchaser shall, in full payment for the foregoing:

(i) pay an amount equal to Five Million Dollars ($5,000,000) (the "Initial Payment") upon the completion of the following, to the satisfaction of Purchaser:

(A) delivery of an opinion of Gislason & Hunter LLP, counsel to Seller, in substantially the form set forth as Exhibit 2.2(a)(i)(A);

(B) delivery of evidence satisfactory to Purchaser that Marks has obtained a full and total release, in form and substance satisfactory to Purchaser in its sole discretion, from any and all claims of any other shareholder of Seller relating to his or her ownership of the Purchased Assets or shareholding interest in the Company;

(C) evidence satisfactory to Purchaser of the assignment to Purchaser of the Existing Manufacturer Agreement (as defined in the Collaboration Agreement) and sublicense to Purchaser of the [*****] License Agreement, and confirmation that no action has been taken to terminate or modify such agreements;

D) a certificate executed by Marks individually (to the best of his knowledge after due investigation) and by Seller as to the accuracy of its representations and warranties as of the date of this Agreement;

(E) a certificate of the Secretary of Seller (a) certifying, as complete and accurate as of the date of this Agreement, attached copies of the governing documents of Seller, (b) certifying and attaching all requisite resolutions or actions of Seller's board of directors and its shareholders approving the execution and delivery of this Agreement, and the consummation of the transactions contemplated herein, and (c) certifying to the incumbency and signatures of the officers of Seller executing this Agreement and the other Transaction Documents that are required to be executed on or prior to such date;

(F) the License Agreement executed by Purchaser;

(G) the Collaboration Agreement executed by Purchaser;

(H) the Company Security Agreement executed by Purchaser and all other instruments and documents required pursuant to the terms of the Company Security Agreement;

(I) the Key Employee Side Letters executed by Marks and Kim, respectively; and

(J) evidence that all outstanding financing statements or other Encumbrances of record affecting the Purchased Assets have been satisfied and discharged or are being satisfied and discharged simultaneously with such payment; plus

(ii) at Closing, pay an amount calculated as follows (the "Closing Payment," as it may be adjusted as hereinafter provided, together with the Initial Payment, the "Purchase Price"):

(A) the Closing Payment shall be equal to $12,775,000.

(B) Purchaser shall be entitled to deduct the accumulated Deficit Amount as of the Closing Date from any Earn-Out payable to Seller pursuant to Section 2.2(c) below and from any amounts remaining in the Joint Reserve Fund provided for in Section 4.2 of the Collaboration Agreement prior to distribution to the parties at the end of the two (2)-year period after the Closing described therein.

In addition to payment of the Closing Payment, Purchaser shall, effective upon the Closing, assume the Assumed Liabilities specifically described in Section 2.3 as being assumed herein:

(iii) Repayment of Initial Payment. The Initial Payment shall be non-refundable to Purchaser except in the case of fraud or knowing misrepresentation by Seller or one of its shareholders. Upon a finding by a trier of fact of fraud or knowing misrepresentation by Seller or one of its shareholders, the Initial Payment shall be fully refundable by Seller to Purchaser immediately upon demand.

(b) At Closing, Purchaser shall pay Seller an amount equal to the Closing Payment *minus* any Undisclosed Liabilities, if any, and *minus* any amount permitted pursuant to Section 7.9 and Section 10.4, which payment shall be made to Seller at Closing, as follows:

(i) [*****] in cash (or other immediately available funds), by wire transfer, payable to the Seller; and

(ii) delivery of the 2019 Note.

(c) In addition to the Purchase Price, Seller shall be entitled to additional compensation (the "Earn-Out") described below from and after the Closing Date through December 31, 2030 (such period being the "Earn-Out Period"). The Earn-Out shall be equal to [*****] of the Net Sales of Earn-Out Products in each country in the North American Territory during each calendar quarter of the Earn-Out Period and [*****]of the Net Sales of Earn-Out Products in each country outside the North American Territory during each calendar quarter of the Earn-Out Period. Purchaser shall make payments of Earn-Out ("Earn-Out Payments") to Seller on a quarterly basis in arrears within fifteen (15) days after the end of each calendar quarter together with statement and calculation of the amount due. Earn-out Payments shall be subject to set-off as provided for in Section 10.6 hereof.

Exhibit C

Allocation

The parties agree that Schedule 2.4 of the IPPA shall be amended and restated as follows:

[*****]

<u>**Exhibit D**</u>

Updated Disclosure Schedules

EXHIBIT 31.1

CERTIFICATIONS

I, Jack C. Bendheim, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Phibro Animal Health Corporation;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Dated: November 6, 2018	/s/ Jack C. Bendheim
	Jack C. Bendheim Chairman, President and Chief Executive Officer

EXHIBIT 31.2

CERTIFICATIONS

I, Richard G. Johnson, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Phibro Animal Health Corporation;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Dated: November 6, 2018	/s/ Richard G. Johnson
	Richard G. Johnson Chief Financial Officer

EXHIBIT 32.1

CERTIFICATION UNDER SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, each of the undersigned certifies that this periodic report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and that information contained in this periodic report fairly presents, in all material respects, the financial condition and results of operations of the issuer.

Dated: November 6, 2018	/s/ Jack C. Bendheim
	Jack C. Bendheim Chairman, President and Chief Executive Officer

EXHIBIT 32.2

CERTIFICATION UNDER SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, each of the undersigned certifies that this periodic report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and that information contained in this periodic report fairly presents, in all material respects, the financial condition and results of operations of the issuer.

Dated: November 6, 2018

/s/ Richard G. Johnson

Richard G. Johnson
Chief Financial Officer