

<div>Form 5500</div> <div>Department of the Treasury Internal Revenue Service</div> <div>Department of Labor Employee Benefits Security Administration</div> <div>Pension Benefit Guaranty Corporation</div>	<div>Annual Return/Report of Employee Benefit Plan</div> <div>This form is required to be filed for employee benefit plans under sections 104 and 4065 of the Employee Retirement Income Security Act of 1974 (ERISA) and sections 6057(b) and 6058(a) of the Internal Revenue Code (the Code).</div> <div>▶ Complete all entries in accordance with the instructions to the Form 5500.</div>	<div>OMB Nos. 1210-0110 1210-0089</div> <div>2022</div> <div>This Form is Open to Public Inspection</div>
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Part I	Annual Report Identification Information
For calendar plan year 2022 or fiscal plan year beginning 04/01/2022 and ending 03/31/2023	
A	This return/report is for: <div><div>☐ a multiemployer plan</div><div>☒ a single-employer plan</div><div>☐ a multiple-employer plan (Filers checking this box must attach a list of participating employer information in accordance with the form instructions.)</div><div>☐ a DFE (specify) _____</div></div>
B	This return/report is: <div><div>☐ the first return/report</div><div>☐ the final return/report</div><div>☐ an amended return/report</div><div>☐ a short plan year return/report (less than 12 months)</div></div>
C	If the plan is a collectively-bargained plan, check here. ▶ ☐
D	Check box if filing under: <div><div>☒ Form 5558</div><div>☐ automatic extension</div><div>☐ the DFVC program</div><div>☐ special extension (enter description)</div></div>
E	If this is a retroactively adopted plan permitted by SECURE Act section 201, check here. ▶ ☐

Part II	Basic Plan Information—enter all requested information		
1a	Name of plan THE RESTATED NONCONTRIBUTORY RETIREMENT PLAN FOR COOPERATIVES	1b	Three-digit plan number (PN) ▶ 020
		1c	Effective date of plan 05/01/1983
2a	Plan sponsor's name (employer, if for a single-employer plan) Mailing address (include room, apt., suite no. and street, or P.O. Box) City or town, state or province, country, and ZIP or foreign postal code (if foreign, see instructions) GREEN PLAINS GRAIN COMPANY LLC 1811 AKSARBEN DRIVE OMAHA, NE 68106	2b	Employer Identification Number (EIN) 26-2042403
		2c	Plan Sponsor's telephone number 402-315-1600
		2d	Business code (see instructions) 115110

Caution: A penalty for the late or incomplete filing of this return/report will be assessed unless reasonable cause is established.

Under penalties of perjury and other penalties set forth in the instructions, I declare that I have examined this return/report, including accompanying schedules, statements and attachments, as well as the electronic version of this return/report, and to the best of my knowledge and belief, it is true, correct, and complete.

SIGN HERE	Filed with authorized/valid electronic signature.	01/11/2024	KELLY HAYERTZ
	Signature of plan administrator	Date	Enter name of individual signing as plan administrator
SIGN HERE	Filed with authorized/valid electronic signature.	01/11/2024	MIKELLE CARNAGEY
	Signature of employer/plan sponsor	Date	Enter name of individual signing as employer or plan sponsor
SIGN HERE			
	Signature of DFE	Date	Enter name of individual signing as DFE

3a Plan administrator's name and address ☐ Same as Plan Sponsor ASSOCIATED BENEFITS CORPORATION 1415 28TH STREET, SUITE 100 WEST DES MOINES, IA 50266-1450	3b Administrator's EIN 42-1279416 3c Administrator's telephone number 515-226-0303
4 If the name and/or EIN of the plan sponsor or the plan name has changed since the last return/report filed for this plan, enter the plan sponsor's name, EIN, the plan name and the plan number from the last return/report: a Sponsor's name c Plan Name	4b EIN 4d PN
5 Total number of participants at the beginning of the plan year	5 152
6 Number of participants as of the end of the plan year unless otherwise stated (welfare plans complete only lines 6a(1) , 6a(2) , 6b , 6c , and 6d). a(1) Total number of active participants at the beginning of the plan year a(2) Total number of active participants at the end of the plan year b Retired or separated participants receiving benefits c Other retired or separated participants entitled to future benefits..... d Subtotal. Add lines 6a(2) , 6b , and 6c e Deceased participants whose beneficiaries are receiving or are entitled to receive benefits. f Total. Add lines 6d and 6e g Number of participants with account balances as of the end of the plan year (only defined contribution plans complete this item)..... h Number of participants who terminated employment during the plan year with accrued benefits that were less than 100% vested.....	6a(1) 0 6a(2) 0 6b 72 6c 76 6d 148 6e 0 6f 148 6g 6h 0
7 Enter the total number of employers obligated to contribute to the plan (only multiemployer plans complete this item)	7
8a If the plan provides pension benefits, enter the applicable pension feature codes from the List of Plan Characteristics Codes in the instructions: 1A 1I 3H b If the plan provides welfare benefits, enter the applicable welfare feature codes from the List of Plan Characteristics Codes in the instructions:	
9a Plan funding arrangement (check all that apply) (1) ☐ Insurance (2) ☐ Code section 412(e)(3) insurance contracts (3) ☒ Trust (4) ☐ General assets of the sponsor	9b Plan benefit arrangement (check all that apply) (1) ☐ Insurance (2) ☐ Code section 412(e)(3) insurance contracts (3) ☒ Trust (4) ☐ General assets of the sponsor
10 Check all applicable boxes in 10a and 10b to indicate which schedules are attached, and, where indicated, enter the number attached. (See instructions)	
a Pension Schedules (1) ☒ R (Retirement Plan Information) (2) ☐ MB (Multiemployer Defined Benefit Plan and Certain Money Purchase Plan Actuarial Information) - signed by the plan actuary (3) ☒ SB (Single-Employer Defined Benefit Plan Actuarial Information) - signed by the plan actuary	b General Schedules (1) ☒ H (Financial Information) (2) ☐ I (Financial Information – Small Plan) (3) ☐ A (Insurance Information) (4) ☒ C (Service Provider Information) (5) ☒ D (DFE/Participating Plan Information) (6) ☐ G (Financial Transaction Schedules)

Part III Form M-1 Compliance Information (to be completed by welfare benefit plans)

11a If the plan provides welfare benefits, was the plan subject to the Form M-1 filing requirements during the plan year? (See instructions and 29 CFR 2520.101-2.) ☐ Yes ☐ No

If "Yes" is checked, complete lines 11b and 11c.

11b Is the plan currently in compliance with the Form M-1 filing requirements? (See instructions and 29 CFR 2520.101-2.) ☐ Yes ☐ No

11c Enter the Receipt Confirmation Code for the 2022 Form M-1 annual report. If the plan was not required to file the 2022 Form M-1 annual report, enter the Receipt Confirmation Code for the most recent Form M-1 that was required to be filed under the Form M-1 filing requirements. (Failure to enter a valid Receipt Confirmation Code will subject the Form 5500 filing to rejection as incomplete.)

Receipt Confirmation Code _____

SCHEDULE SB (Form 5500) Department of the Treasury Internal Revenue Service Department of Labor Employee Benefits Security Administration Pension Benefit Guaranty Corporation	Single-Employer Defined Benefit Plan Actuarial Information This schedule is required to be filed under section 104 of the Employee Retirement Income Security Act of 1974 (ERISA) and section 6059 of the Internal Revenue Code (the Code). ▶ File as an attachment to Form 5500 or 5500-SF.	OMB No. 1210-0110 2022 This Form is Open to Public Inspection
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For calendar plan year 2022 or fiscal plan year beginning 04/01/2022 and ending 03/31/2023

▶ **Round off amounts to nearest dollar.**

▶ **Caution:** A penalty of \$1,000 will be assessed for late filing of this report unless reasonable cause is established.

A Name of plan <u>THE RESTATED NONCONTRIBUTORY RETIREMENT PLAN FOR COOPERATIVES</u>	B Three-digit plan number (PN) ▶ <u>020</u>
C Plan sponsor's name as shown on line 2a of Form 5500 or 5500-SF <u>GREEN PLAINS GRAIN COMPANY LLC</u>	D Employer Identification Number (EIN) <u>26-2042403</u>
E Type of plan: ☒ Single ☐ Multiple-A ☐ Multiple-B	F Prior year plan size: ☐ 100 or fewer ☒ 101-500 ☐ More than 500

Part I	Basic Information
1 Enter the valuation date: Month <u>04</u> Day <u>01</u> Year <u>2022</u>	
2 Assets:	
a Market value.....	2a <u>5480555</u>
b Actuarial value	2b <u>4981073</u>
3 Funding target/participant count breakdown	
a For retired participants and beneficiaries receiving payment	(1) Number of participants <u>75</u> (2) Vested Funding Target <u>3602694</u> (3) Total Funding Target <u>3602694</u>
b For terminated vested participants.....	<u>77</u> <u>1828979</u> <u>1828979</u>
c For active participants.....	<u>0</u> <u>0</u> <u>0</u>
d Total	<u>152</u> <u>5431673</u> <u>5431673</u>
4 If the plan is in at-risk status, check the box and complete lines (a) and (b)..... ☐	
a Funding target disregarding prescribed at-risk assumptions.....	4a
b Funding target reflecting at-risk assumptions, but disregarding transition rule for plans that have been in at-risk status for fewer than five consecutive years and disregarding loading factor	4b
5 Effective interest rate.....	5 <u>5.40</u> %
6 Target normal cost	
a Present value of current plan year accruals.....	6a <u>0</u>
b Expected plan-related expenses	6b <u>21468</u>
c Total (line 6a + line 6b)	6c <u>21468</u>

Statement by Enrolled Actuary

To the best of my knowledge, the information supplied in this schedule and accompanying schedules, statements and attachments, if any, is complete and accurate. Each prescribed assumption was applied in accordance with applicable law and regulations. In my opinion, each other assumption is reasonable (taking into account the experience of the plan and reasonable expectations) and such other assumptions, in combination, offer my best estimate of anticipated experience under the plan.

SIGN HERE		<u>12/20/2023</u>
Signature of actuary		Date
<u>ANNA MAYZEL</u>		<u>23-06654</u>
Type or print name of actuary		Most recent enrollment number
<u>MERCER</u>		<u>917-346-0301</u>
Firm name		Telephone number (including area code)
<u>1166 AVENUE OF THE AMERICAS</u> <u>NEW YORK, NY 10036</u>		
Address of the firm		

If the actuary has not fully reflected any regulation or ruling promulgated under the statute in completing this schedule, check the box and see instructions ☐

Part II Beginning of Year Carryover and Prefunding Balances		
	(a) Carryover balance	(b) Prefunding balance
7 Balance at beginning of prior year after applicable adjustments (line 13 from prior year).....	0	32004
8 Portion elected for use to offset prior year's funding requirement (line 35 from prior year)	0	8172
9 Amount remaining (line 7 minus line 8)	0	23832
10 Interest on line 9 using prior year's actual return of <u>5.91</u> %	0	1408
11 Prior year's excess contributions to be added to prefunding balance:		
a Present value of excess contributions (line 38a from prior year).....		0
b(1) Interest on the excess, if any, of line 38a over line 38b from prior year Schedule SB, using prior year's effective interest rate of <u>5.57</u> %.....		0
b(2) Interest on line 38b from prior year Schedule SB, using prior year's actual return		0
c Total available at beginning of current plan year to add to prefunding balance.....		0
d Portion of (c) to be added to prefunding balance.....		0
12 Other reductions in balances due to elections or deemed elections	0	0
13 Balance at beginning of current year (line 9 + line 10 + line 11d – line 12).....	0	25240

Part III Funding Percentages		
14 Funding target attainment percentage	14	91.23 %
15 Adjusted funding target attainment percentage	15	91.23 %
16 Prior year's funding percentage for purposes of determining whether carryover/prefunding balances may be used to reduce current year's funding requirement.....	16	92.04 %
17 If the current value of the assets of the plan is less than 70 percent of the funding target, enter such percentage.	17	%

Part IV Contributions and Liquidity Shortfalls					
18 Contributions made to the plan for the plan year by employer(s) and employees:					
(a) Date (MM-DD-YYYY)	(b) Amount paid by employer(s)	(c) Amount paid by employees	(a) Date (MM-DD-YYYY)	(b) Amount paid by employer(s)	(c) Amount paid by employees
07/13/2022	16000	0			
10/14/2022	16000	0			
01/10/2023	16000	0			
04/11/2023	16000	0			
			Totals ►	18(b)	64000
				18(c)	0

19 Discounted employer contributions – see instructions for small plan with a valuation date after the beginning of the year:		
a Contributions allocated toward unpaid minimum required contributions from prior years.....	19a	0
b Contributions made to avoid restrictions adjusted to valuation date.	19b	0
c Contributions allocated toward minimum required contribution for current year adjusted to valuation date.	19c	61834
20 Quarterly contributions and liquidity shortfalls:		
a Did the plan have a "funding shortfall" for the prior year?..... ☒ Yes ☐ No		
b If line 20a is "Yes," were required quarterly installments for the current year made in a timely manner? ☒ Yes ☐ No		
c If line 20a is "Yes," see instructions and complete the following table as applicable:		
Liquidity shortfall as of end of quarter of this plan year		
(1) 1st	(2) 2nd	(3) 3rd
0	0	0
		(4) 4th
		0

Part V Assumptions Used to Determine Funding Target and Target Normal Cost**21** Discount rate:**a** Segment rates:1st segment:
4.75 %2nd segment:
5.18 %3rd segment:
5.92 %☐ N/A, full yield curve used**b** Applicable month (enter code).....**21b**

0

22 Weighted average retirement age**22**

63

23 Mortality table(s) (see instructions)☐

Prescribed - combined

☒

Prescribed - separate

☐

Substitute

Part VI Miscellaneous Items**24** Has a change been made in the non-prescribed actuarial assumptions for the current plan year? If "Yes," see instructions regarding required attachment. ☐ Yes ☒ No**25** Has a method change been made for the current plan year? If "Yes," see instructions regarding required attachment. ☐ Yes ☒ No**26** Demographic and benefit information**a** Is the plan required to provide a Schedule of Active Participants? If "Yes," see instructions regarding required attachment. ☐ Yes ☒ No**b** Is the plan required to provide a projection of expected benefit payments? If "Yes," see instructions regarding required attachment ... ☐ Yes ☒ No**27** If the plan is subject to alternative funding rules, enter applicable code and see instructions regarding attachment**27****Part VII Reconciliation of Unpaid Minimum Required Contributions For Prior Years****28** Unpaid minimum required contributions for all prior years.....**28**

0

29 Discounted employer contributions allocated toward unpaid minimum required contributions from prior years (line 19a)**29**

0

30 Remaining amount of unpaid minimum required contributions (line 28 minus line 29)**30**

0

Part VIII Minimum Required Contribution For Current Year**31** Target normal cost and excess assets (see instructions):**a** Target normal cost (line 6c).....**31a**

21468

b Excess assets, if applicable, but not greater than line 31a**31b**

0

32 Amortization installments:**a** Net shortfall amortization installment

Outstanding Balance

Installment

475840

49470

b Waiver amortization installment

0

0

33 If a waiver has been approved for this plan year, enter the date of the ruling letter granting the approval (Month _____ Day _____ Year _____) and the waived amount**33****34** Total funding requirement before reflecting carryover/prefunding balances (lines 31a - 31b + 32a + 32b - 33)....**34**

70938

35 Balances elected for use to offset funding requirement.....Carryover balance
0Prefunding balance
9104Total balance
9104**36** Additional cash requirement (line 34 minus line 35)**36**

61834

37 Contributions allocated toward minimum required contribution for current year adjusted to valuation date (line 19c)**37**

61834

38 Present value of excess contributions for current year (see instructions)**a** Total (excess, if any, of line 37 over line 36)**38a**

0

b Portion included in line 38a attributable to use of prefunding and funding standard carryover balances**38b**

0

39 Unpaid minimum required contribution for current year (excess, if any, of line 36 over line 37)**39**

0

40 Unpaid minimum required contributions for all years.....**40**

0

Part IX Pension Funding Relief Under the American Rescue Plan Act of 2021 (See Instructions)**41** If an election was made to use the extended amortization rule for a plan year beginning on or before December 31, 2021, check the box to indicate the first plan year for which the rule applies. ☐ 2019 ☒ 2020 ☐ 2021

<div>SCHEDULE C</div> <div>(Form 5500)</div> <div>Department of the Treasury Internal Revenue Service</div> <div>Department of Labor Employee Benefits Security Administration</div> <div>Pension Benefit Guaranty Corporation</div>	<div>Service Provider Information</div> <div>This schedule is required to be filed under section 104 of the Employee Retirement Income Security Act of 1974 (ERISA).</div> <div>▶ File as an attachment to Form 5500.</div>	OMB No. 1210-0110
		2022
		This Form is Open to Public Inspection.

For calendar plan year 2022 or fiscal plan year beginning 04/01/2022 and ending 03/31/2023	
A Name of plan THE RESTATED NONCONTRIBUTORY RETIREMENT PLAN FOR COOPERATIVES	B Three-digit plan number (PN) ▶ 020
C Plan sponsor's name as shown on line 2a of Form 5500 GREEN PLAINS GRAIN COMPANY LLC	D Employer Identification Number (EIN) 26-2042403

Part I Service Provider Information (see instructions)

You must complete this Part, in accordance with the instructions, to report the information required for **each person** who received, directly or indirectly, \$5,000 or more in total compensation (i.e., money or anything else of monetary value) in connection with services rendered to the plan or the person's position with the plan during the plan year. If a person received **only** eligible indirect compensation for which the plan received the required disclosures, you are required to answer line 1 but are not required to include that person when completing the remainder of this Part.

1 Information on Persons Receiving Only Eligible Indirect Compensation

- a Check "Yes" or "No" to indicate whether you are excluding a person from the remainder of this Part because they received only eligible indirect compensation for which the plan received the required disclosures (see instructions for definitions and conditions)..... ☒ Yes ☐ No
- b If you answered line 1a "Yes," enter the name and EIN or address of each person providing the required disclosures for the service providers who received only eligible indirect compensation. Complete as many entries as needed (see instructions).

(b) Enter name and EIN or address of person who provided you disclosures on eligible indirect compensation	
INVESCO CAPITAL MANAGEMENT, LLC	3500 LACEY ROAD, SUITE 700 DOWNERS GROVE, IL 60515

(b) Enter name and EIN or address of person who provided you disclosures on eligible indirect compensation	
FIDELITY INVESTMENTS	245 SUMMER STREET BOSTON, MA 02210

(b) Enter name and EIN or address of person who provided you disclosures on eligible indirect compensation	
PIMCO FUNDS	PO BOX 55060 BOSTON, MA 02205-5060

(b) Enter name and EIN or address of person who provided you disclosures on eligible indirect compensation	
ALPS CORE COMMODITY MANAGEMENT, LLC	PO BOX 44386 DENVER, CO 80203

(b) Enter name and EIN or address of person who provided you disclosures on eligible indirect compensation

AMERICAN FUNDS SERVICE CO.

PO BOX 6007
INDIANAPOLIS, IN 46206-6007

(b) Enter name and EIN or address of person who provided you disclosures on eligible indirect compensation

OPPENHEIMER FUNDS SERVICES

PO BOX 5207
DENVER, CO 80217-5207

(b) Enter name and EIN or address of person who provided you disclosures on eligible indirect compensation

METWEST FUNDS

865 SOUTH FIGUEROA STREET
SUITE 1800
LOS ANGELES, CA 90017

(b) Enter name and EIN or address of person who provided you disclosures on eligible indirect compensation

SEI TRUST COMPANY

06-1271230

(b) Enter name and EIN or address of person who provided you disclosures on eligible indirect compensation

(b) Enter name and EIN or address of person who provided you disclosures on eligible indirect compensation

(b) Enter name and EIN or address of person who provided you disclosures on eligible indirect compensation

(b) Enter name and EIN or address of person who provided you disclosures on eligible indirect compensation

2. Information on Other Service Providers Receiving Direct or Indirect Compensation. Except for those persons for whom you answered "Yes" to line 1a above, complete as many entries as needed to list each person receiving, directly or indirectly, \$5,000 or more in total compensation (i.e., money or anything else of value) in connection with services rendered to the plan or their position with the plan during the plan year. (See instructions).

(a) Enter name and EIN or address (see instructions)

(b) Service Code(s)	(c) Relationship to employer, employee organization, or person known to be a party-in-interest	(d) Enter direct compensation paid by the plan. If none, enter -0-.	(e) Did service provider receive indirect compensation? (sources other than plan or plan sponsor)	(f) Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures?	(g) Enter total indirect compensation received by service provider excluding eligible indirect compensation for which you answered "Yes" to element (f). If none, enter -0-.	(h) Did the service provider give you a formula instead of an amount or estimated amount?
			Yes ☐ No ☐	Yes ☐ No ☐		Yes ☐ No ☐

(a) Enter name and EIN or address (see instructions)

(b) Service Code(s)	(c) Relationship to employer, employee organization, or person known to be a party-in-interest	(d) Enter direct compensation paid by the plan. If none, enter -0-.	(e) Did service provider receive indirect compensation? (sources other than plan or plan sponsor)	(f) Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures?	(g) Enter total indirect compensation received by service provider excluding eligible indirect compensation for which you answered "Yes" to element (f). If none, enter -0-.	(h) Did the service provider give you a formula instead of an amount or estimated amount?
			Yes ☐ No ☐	Yes ☐ No ☐		Yes ☐ No ☐

(a) Enter name and EIN or address (see instructions)

(b) Service Code(s)	(c) Relationship to employer, employee organization, or person known to be a party-in-interest	(d) Enter direct compensation paid by the plan. If none, enter -0-.	(e) Did service provider receive indirect compensation? (sources other than plan or plan sponsor)	(f) Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures?	(g) Enter total indirect compensation received by service provider excluding eligible indirect compensation for which you answered "Yes" to element (f). If none, enter -0-.	(h) Did the service provider give you a formula instead of an amount or estimated amount?
			Yes ☐ No ☐	Yes ☐ No ☐		Yes ☐ No ☐

Part I Service Provider Information (continued)

3. If you reported on line 2 receipt of indirect compensation, other than eligible indirect compensation, by a service provider, and the service provider is a fiduciary or provides contract administrator, consulting, custodial, investment advisory, investment management, broker, or recordkeeping services, answer the following questions for (a) each source from whom the service provider received \$1,000 or more in indirect compensation and (b) each source for whom the service provider gave you a formula used to determine the indirect compensation instead of an amount or estimated amount of the indirect compensation. Complete as many entries as needed to report the required information for each source.

(a) Enter service provider name as it appears on line 2	(b) Service Codes (see instructions)	(c) Enter amount of indirect compensation
(d) Enter name and EIN (address) of source of indirect compensation	(e) Describe the indirect compensation, including any formula used to determine the service provider's eligibility for or the amount of the indirect compensation.	
(a) Enter service provider name as it appears on line 2	(b) Service Codes (see instructions)	(c) Enter amount of indirect compensation
(d) Enter name and EIN (address) of source of indirect compensation	(e) Describe the indirect compensation, including any formula used to determine the service provider's eligibility for or the amount of the indirect compensation.	
(a) Enter service provider name as it appears on line 2	(b) Service Codes (see instructions)	(c) Enter amount of indirect compensation
(d) Enter name and EIN (address) of source of indirect compensation	(e) Describe the indirect compensation, including any formula used to determine the service provider's eligibility for or the amount of the indirect compensation.	

Part II Service Providers Who Fail or Refuse to Provide Information

4 Provide, to the extent possible, the following information for each service provider who failed or refused to provide the information necessary to complete this Schedule.

(a) Enter name and EIN or address of service provider (see instructions)	(b) Nature of Service Code(s)	(c) Describe the information that the service provider failed or refused to provide
(a) Enter name and EIN or address of service provider (see instructions)	(b) Nature of Service Code(s)	(c) Describe the information that the service provider failed or refused to provide
(a) Enter name and EIN or address of service provider (see instructions)	(b) Nature of Service Code(s)	(c) Describe the information that the service provider failed or refused to provide
(a) Enter name and EIN or address of service provider (see instructions)	(b) Nature of Service Code(s)	(c) Describe the information that the service provider failed or refused to provide
(a) Enter name and EIN or address of service provider (see instructions)	(b) Nature of Service Code(s)	(c) Describe the information that the service provider failed or refused to provide
(a) Enter name and EIN or address of service provider (see instructions)	(b) Nature of Service Code(s)	(c) Describe the information that the service provider failed or refused to provide

Part III Termination Information on Accountants and Enrolled Actuaries (see instructions)
(complete as many entries as needed)

a Name:	b EIN:
c Position:	
d Address:	e Telephone:

Explanation:

a Name:	b EIN:
c Position:	
d Address:	e Telephone:

Explanation:

a Name:	b EIN:
c Position:	
d Address:	e Telephone:

Explanation:

a Name:	b EIN:
c Position:	
d Address:	e Telephone:

Explanation:

a Name:	b EIN:
c Position:	
d Address:	e Telephone:

Explanation:

SCHEDULE D (Form 5500) <small>Department of the Treasury Internal Revenue Service</small> <small>Department of Labor Employee Benefits Security Administration</small>	DFE/Participating Plan Information This schedule is required to be filed under section 104 of the Employee Retirement Income Security Act of 1974 (ERISA). ► File as an attachment to Form 5500.	OMB No. 1210-0110 2022 This Form is Open to Public Inspection.
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For calendar plan year 2022 or fiscal plan year beginning 04/01/2022 and ending 03/31/2023		
A Name of plan THE RESTATED NONCONTRIBUTORY RETIREMENT PLAN FOR COOPERATIVES	B Three-digit plan number (PN) ►	020
C Plan or DFE sponsor's name as shown on line 2a of Form 5500 GREEN PLAINS GRAIN COMPANY LLC	D Employer Identification Number (EIN) 26-2042403	

Part I	Information on interests in MTIAs, CCTs, PSAs, and 103-12 IEs (to be completed by plans and DFEs) (Complete as many entries as needed to report all interests in DFEs)		
a Name of MTIA, CCT, PSA, or 103-12 IE: PRINCIPAL/TRP INST LCG MGD CIT F			
b Name of sponsor of entity listed in (a): SEI TRUST COMPANY			
c EIN-PN 45-6648614-001	d Entity code C	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) 160288	
a Name of MTIA, CCT, PSA, or 103-12 IE: PRINCIPAL/BLACKROCK S&P 500 INDEX			
b Name of sponsor of entity listed in (a): SEI TRUST COMPANY			
c EIN-PN 94-3224211-001	d Entity code C	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) 546528	
a Name of MTIA, CCT, PSA, or 103-12 IE: PRINCIPAL/MFS VALUE CIT F			
b Name of sponsor of entity listed in (a): SEI TRUST COMPANY			
c EIN-PN 45-6648640-001	d Entity code C	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) 309286	
a Name of MTIA, CCT, PSA, or 103-12 IE: PRINCIPAL/BLACKROCK S&P MC INDX CIT			
b Name of sponsor of entity listed in (a): SEI TRUST COMPANY			
c EIN-PN 52-2265235-001	d Entity code C	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) 317524	
a Name of MTIA, CCT, PSA, or 103-12 IE: PFG/MULTI-MANAGER SMALL CAP CIT N			
b Name of sponsor of entity listed in (a): SEI TRUST COMPANY			
c EIN-PN 45-6648658-001	d Entity code C	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) 157597	
a Name of MTIA, CCT, PSA, or 103-12 IE: PRINCIPAL/BLACKROCK INTL EQTY INDX			
b Name of sponsor of entity listed in (a): SEI TRUST COMPANY			
c EIN-PN 52-2265229-001	d Entity code C	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) 225742	
a Name of MTIA, CCT, PSA, or 103-12 IE: ALLSPRING CORE BOND CIT F			
b Name of sponsor of entity listed in (a): SEI TRUST COMPANY			
c EIN-PN 94-3222878-001	d Entity code C	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) 457661	

a Name of MTIA, CCT, PSA, or 103-12 IE: PFG/FEDERATED TOTAL RETURN BOND CIT

b Name of sponsor of entity listed in (a): SEI TRUST COMPANY

c EIN-PN 46-6584317-001	d Entity code C	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) 463940
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a Name of MTIA, CCT, PSA, or 103-12 IE: PFG/BLACKROCK ST INVESTMENT FUND S1

b Name of sponsor of entity listed in (a): SEI TRUST COMPANY

c EIN-PN 41-6292499-001	d Entity code C	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) 58791
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a Name of MTIA, CCT, PSA, or 103-12 IE: PRINCIPAL/AB LARGE CAP GROWTH CIT

b Name of sponsor of entity listed in (a): SEI TRUST COMPANY

c EIN-PN 92-1443848-001	d Entity code C	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) 166388
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a Name of MTIA, CCT, PSA, or 103-12 IE:

b Name of sponsor of entity listed in (a):

c EIN-PN	d Entity code	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)
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a Name of MTIA, CCT, PSA, or 103-12 IE:

b Name of sponsor of entity listed in (a):

c EIN-PN	d Entity code	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)
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a Name of MTIA, CCT, PSA, or 103-12 IE:

b Name of sponsor of entity listed in (a):

c EIN-PN	d Entity code	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)
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a Name of MTIA, CCT, PSA, or 103-12 IE:

b Name of sponsor of entity listed in (a):

c EIN-PN	d Entity code	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)
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a Name of MTIA, CCT, PSA, or 103-12 IE:

b Name of sponsor of entity listed in (a):

c EIN-PN	d Entity code	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)
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a Name of MTIA, CCT, PSA, or 103-12 IE:

b Name of sponsor of entity listed in (a):

c EIN-PN	d Entity code	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)
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a Name of MTIA, CCT, PSA, or 103-12 IE:

b Name of sponsor of entity listed in (a):

c EIN-PN	d Entity code	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)
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Part II **Information on Participating Plans (to be completed by DFEs)**

(Complete as many entries as needed to report all participating plans)

a Plan name**b** Name of
plan sponsor**c** EIN-PN**a** Plan name**b** Name of
plan sponsor**c** EIN-PN**a** Plan name**b** Name of
plan sponsor**c** EIN-PN**a** Plan name**b** Name of
plan sponsor**c** EIN-PN**a** Plan name**b** Name of
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plan sponsor**c** EIN-PN**a** Plan name**b** Name of
plan sponsor**c** EIN-PN**a** Plan name**b** Name of
plan sponsor**c** EIN-PN**a** Plan name**b** Name of
plan sponsor**c** EIN-PN**a** Plan name**b** Name of
plan sponsor**c** EIN-PN**a** Plan name**b** Name of
plan sponsor**c** EIN-PN

SCHEDULE H (Form 5500) <small>Department of the Treasury Internal Revenue Service</small> <small>Department of Labor Employee Benefits Security Administration</small> <small>Pension Benefit Guaranty Corporation</small>	Financial Information This schedule is required to be filed under section 104 of the Employee Retirement Income Security Act of 1974 (ERISA), and section 6058(a) of the Internal Revenue Code (the Code). ► File as an attachment to Form 5500.	OMB No. 1210-0110 2022 This Form is Open to Public Inspection
For calendar plan year 2022 or fiscal plan year beginning 04/01/2022 and ending 03/31/2023		
A Name of plan THE RESTATED NONCONTRIBUTORY RETIREMENT PLAN FOR COOPERATIVES		B Three-digit plan number (PN) ► 020
C Plan sponsor's name as shown on line 2a of Form 5500 GREEN PLAINS GRAIN COMPANY LLC		D Employer Identification Number (EIN) 26-2042403

Part I Asset and Liability Statement			
1 Current value of plan assets and liabilities at the beginning and end of the plan year. Combine the value of plan assets held in more than one trust. Report the value of the plan's interest in a commingled fund containing the assets of more than one plan on a line-by-line basis unless the value is reportable on lines 1c(9) through 1c(14). Do not enter the value of that portion of an insurance contract which guarantees, during this plan year, to pay a specific dollar benefit at a future date. Round off amounts to the nearest dollar. MTIAs, CCTs, PSAs, and 103-12 IEs do not complete lines 1b(1), 1b(2), 1c(8), 1g, 1h, and 1i. CCTs, PSAs, and 103-12 IEs also do not complete lines 1d and 1e. See instructions.			
Assets		(a) Beginning of Year	(b) End of Year
a Total noninterest-bearing cash.....	1a	-1137	-2231
b Receivables (less allowance for doubtful accounts):			
(1) Employer contributions.....	1b(1)	0	16000
(2) Participant contributions.....	1b(2)		
(3) Other.....	1b(3)	7	2386
c General investments:			
(1) Interest-bearing cash (include money market accounts & certificates of deposit).....	1c(1)		
(2) U.S. Government securities	1c(2)		
(3) Corporate debt instruments (other than employer securities):			
(A) Preferred	1c(3)(A)		
(B) All other	1c(3)(B)		
(4) Corporate stocks (other than employer securities):			
(A) Preferred	1c(4)(A)		
(B) Common.....	1c(4)(B)		
(5) Partnership/joint venture interests	1c(5)		
(6) Real estate (other than employer real property)	1c(6)		
(7) Loans (other than to participants).....	1c(7)		
(8) Participant loans.....	1c(8)		
(9) Value of interest in common/collective trusts.....	1c(9)	3495219	2863745
(10) Value of interest in pooled separate accounts	1c(10)		
(11) Value of interest in master trust investment accounts.....	1c(11)		
(12) Value of interest in 103-12 investment entities	1c(12)		
(13) Value of interest in registered investment companies (e.g., mutual funds).....	1c(13)	1971534	1718031
(14) Value of funds held in insurance company general account (unallocated contracts).....	1c(14)		
(15) Other	1c(15)		

1d Employer-related investments:		(a) Beginning of Year	(b) End of Year
(1) Employer securities	1d(1)		
(2) Employer real property	1d(2)		
e Buildings and other property used in plan operation	1e		
f Total assets (add all amounts in lines 1a through 1e)	1f	5465623	4597931

Liabilities

g Benefit claims payable	1g		
h Operating payables	1h		
i Acquisition indebtedness	1i		
j Other liabilities	1j		
k Total liabilities (add all amounts in lines 1g through 1j)	1k	0	0

Net Assets

l Net assets (subtract line 1k from line 1f)	1l	5465623	4597931
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Part II Income and Expense Statement

2 Plan income, expenses, and changes in net assets for the year. Include all income and expenses of the plan, including any trust(s) or separately maintained fund(s) and any payments/receipts to/from insurance carriers. Round off amounts to the nearest dollar. MTIAs, CCTs, PSAs, and 103-12 IEs do not complete lines 2a, 2b(1)(E), 2e, 2f, and 2g.

Income

		(a) Amount	(b) Total
a Contributions:			
(1) Received or receivable in cash from: (A) Employers	2a(1)(A)	79000	
(B) Participants	2a(1)(B)		
(C) Others (including rollovers)	2a(1)(C)		
(2) Noncash contributions	2a(2)		
(3) Total contributions. Add lines 2a(1)(A) , (B) , (C) , and line 2a(2)	2a(3)		79000
b Earnings on investments:			
(1) Interest:			
(A) Interest-bearing cash (including money market accounts and certificates of deposit)	2b(1)(A)		
(B) U.S. Government securities	2b(1)(B)		
(C) Corporate debt instruments	2b(1)(C)		
(D) Loans (other than to participants)	2b(1)(D)		
(E) Participant loans	2b(1)(E)		
(F) Other	2b(1)(F)		
(G) Total interest. Add lines 2b(1)(A) through (F)	2b(1)(G)		0
(2) Dividends: (A) Preferred stock	2b(2)(A)		
(B) Common stock	2b(2)(B)		
(C) Registered investment company shares (e.g. mutual funds)	2b(2)(C)	56627	
(D) Total dividends. Add lines 2b(2)(A) , (B) , and (C)	2b(2)(D)		56627
(3) Rents	2b(3)		
(4) Net gain (loss) on sale of assets: (A) Aggregate proceeds	2b(4)(A)		
(B) Aggregate carrying amount (see instructions)	2b(4)(B)		
(C) Subtract line 2b(4)(B) from line 2b(4)(A) and enter result	2b(4)(C)		0
(5) Unrealized appreciation (depreciation) of assets: (A) Real estate	2b(5)(A)		
(B) Other	2b(5)(B)		
(C) Total unrealized appreciation of assets. Add lines 2b(5)(A) and (B)	2b(5)(C)		0

		(a) Amount	(b) Total
(6) Net investment gain (loss) from common/collective trusts	2b(6)		-224502
(7) Net investment gain (loss) from pooled separate accounts	2b(7)		
(8) Net investment gain (loss) from master trust investment accounts	2b(8)		
(9) Net investment gain (loss) from 103-12 investment entities.....	2b(9)		
(10) Net investment gain (loss) from registered investment companies (e.g., mutual funds)	2b(10)		-237436
c Other income	2c		
d Total income. Add all income amounts in column (b) and enter total	2d		-326311
Expenses			
e Benefit payment and payments to provide benefits:			
(1) Directly to participants or beneficiaries, including direct rollovers	2e(1)	476392	
(2) To insurance carriers for the provision of benefits	2e(2)		
(3) Other	2e(3)		
(4) Total benefit payments. Add lines 2e(1) through (3)	2e(4)		476392
f Corrective distributions (see instructions)	2f		
g Certain deemed distributions of participant loans (see instructions)	2g		
h Interest expense	2h		
i Administrative expenses: (1) Professional fees	2i(1)	1886	
(2) Contract administrator fees	2i(2)		
(3) Investment advisory and management fees	2i(3)	4463	
(4) Other	2i(4)	58640	
(5) Total administrative expenses. Add lines 2i(1) through (4)	2i(5)		64989
j Total expenses. Add all expense amounts in column (b) and enter total	2j		541381
Net Income and Reconciliation			
k Net income (loss). Subtract line 2j from line 2d	2k		-867692
l Transfers of assets:			
(1) To this plan	2l(1)		
(2) From this plan	2l(2)		

Part III Accountant's Opinion

3 Complete lines 3a through 3c if the opinion of an independent qualified public accountant is attached to this Form 5500. Complete line 3d if an opinion is not attached.

a The attached opinion of an independent qualified public accountant for this plan is (see instructions):

(1) ☒ Unmodified (2) ☐ Qualified (3) ☐ Disclaimer (4) ☐ Adverse

b Check the appropriate box(es) to indicate whether the IQPA performed an ERISA section 103(a)(3)(C) audit. Check both boxes (1) and (2) if the audit was performed pursuant to both 29 CFR 2520.103-8 and 29 CFR 2520.103-12(d). Check box (3) if pursuant to neither.

(1) ☒ DOL Regulation 2520.103-8 (2) ☐ DOL Regulation 2520.103-12(d) (3) ☐ neither DOL Regulation 2520.103-8 nor DOL Regulation 2520.103-12(d).

c Enter the name and EIN of the accountant (or accounting firm) below:

(1) Name: **DELOITTE & TOUCHE LLP**

(2) EIN: **13-3891517**

d The opinion of an independent qualified public accountant is **not attached** because:

(1) ☐ This form is filed for a CCT, PSA, or MTIA. (2) ☐ It will be attached to the next Form 5500 pursuant to 29 CFR 2520.104-50.

Part IV Compliance Questions

4 CCTs and PSAs do not complete Part IV. MTIAs, 103-12 IEs, and GIAs do not complete lines 4a, 4e, 4f, 4g, 4h, 4k, 4m, 4n, or 5. 103-12 IEs also do not complete lines 4j and 4l. MTIAs also do not complete line 4l.

During the plan year:

a Was there a failure to transmit to the plan any participant contributions within the time period described in 29 CFR 2510.3-102? Continue to answer "Yes" for any prior year failures until fully corrected. (See instructions and DOL's Voluntary Fiduciary Correction Program.)

	Yes	No	Amount
4a		X	

	Yes	No	Amount
b Were any loans by the plan or fixed income obligations due the plan in default as of the close of the plan year or classified during the year as uncollectible? Disregard participant loans secured by participant's account balance. (Attach Schedule G (Form 5500) Part I if "Yes" is checked.)			
4b		X	
c Were any leases to which the plan was a party in default or classified during the year as uncollectible? (Attach Schedule G (Form 5500) Part II if "Yes" is checked.)			
4c		X	
d Were there any nonexempt transactions with any party-in-interest? (Do not include transactions reported on line 4a. Attach Schedule G (Form 5500) Part III if "Yes" is checked.)			
4d		X	
e Was this plan covered by a fidelity bond?	X		5000000
f Did the plan have a loss, whether or not reimbursed by the plan's fidelity bond, that was caused by fraud or dishonesty?		X	
4f		X	
g Did the plan hold any assets whose current value was neither readily determinable on an established market nor set by an independent third party appraiser?			
4g		X	
h Did the plan receive any noncash contributions whose value was neither readily determinable on an established market nor set by an independent third party appraiser?			
4h		X	
i Did the plan have assets held for investment? (Attach schedule(s) of assets if "Yes" is checked, and see instructions for format requirements.)	X		
4i	X		
j Were any plan transactions or series of transactions in excess of 5% of the current value of plan assets? (Attach schedule of transactions if "Yes" is checked and see instructions for format requirements.)	X		
4j	X		
k Were all the plan assets either distributed to participants or beneficiaries, transferred to another plan, or brought under the control of the PBGC?		X	
4k		X	
l Has the plan failed to provide any benefit when due under the plan?		X	
4l		X	
m If this is an individual account plan, was there a blackout period? (See instructions and 29 CFR 2520.101-3.)			
4m			
n If 4m was answered "Yes," check the "Yes" box if you either provided the required notice or one of the exceptions to providing the notice applied under 29 CFR 2520.101-3.			
4n			

5a Has a resolution to terminate the plan been adopted during the plan year or any prior plan year? ☐ Yes ☒ No
If "Yes," enter the amount of any plan assets that reverted to the employer this year _____.

5b If, during this plan year, any assets or liabilities were transferred from this plan to another plan(s), identify the plan(s) to which assets or liabilities were transferred. (See instructions.)

5b(1) Name of plan(s)	5b(2) EIN(s)	5b(3) PN(s)

5c Was the plan a defined benefit plan covered under the PBGC insurance program at any time during this plan year? (See ERISA section 4021 and instructions.) ☒ Yes ☐ No ☐ Not determined
If "Yes" is checked, enter the My PAA confirmation number from the PBGC premium filing for this plan year 493634.

<div>SCHEDULE R (Form 5500) Department of the Treasury Internal Revenue Service Department of Labor Employee Benefits Security Administration Pension Benefit Guaranty Corporation</div>	<div>Retirement Plan Information</div> <div>This schedule is required to be filed under sections 104 and 4065 of the Employee Retirement Income Security Act of 1974 (ERISA) and section 6058(a) of the Internal Revenue Code (the Code).</div> <div>► File as an attachment to Form 5500.</div>	<div>OMB No. 1210-0110</div> <div>2022</div> <div>This Form is Open to Public Inspection.</div>
For calendar plan year 2022 or fiscal plan year beginning 04/01/2022 and ending 03/31/2023		
A Name of plan THE RESTATED NONCONTRIBUTORY RETIREMENT PLAN FOR COOPERATIVES		B Three-digit plan number (PN) ► 020
C Plan sponsor's name as shown on line 2a of Form 5500 GREEN PLAINS GRAIN COMPANY LLC		D Employer Identification Number (EIN) 26-2042403
Part I Distributions		
All references to distributions relate only to payments of benefits during the plan year.		
1 Total value of distributions paid in property other than in cash or the forms of property specified in the instructions.....		1 0
2 Enter the EIN(s) of payor(s) who paid benefits on behalf of the plan to participants or beneficiaries during the year (if more than two, enter EINs of the two payors who paid the greatest dollar amounts of benefits): EIN(s): 42-0127290		
Profit-sharing plans, ESOPs, and stock bonus plans, skip line 3.		
3 Number of participants (living or deceased) whose benefits were distributed in a single sum, during the plan year.....		3 0
Part II Funding Information (If the plan is not subject to the minimum funding requirements of section 412 of the Internal Revenue Code or ERISA section 302, skip this Part.)		
4 Is the plan administrator making an election under Code section 412(d)(2) or ERISA section 302(d)(2)? ☐ Yes ☒ No ☐ N/A If the plan is a defined benefit plan, go to line 8.		
5 If a waiver of the minimum funding standard for a prior year is being amortized in this plan year, see instructions and enter the date of the ruling letter granting the waiver. Date: Month _____ Day _____ Year _____ If you completed line 5, complete lines 3, 9, and 10 of Schedule MB and do not complete the remainder of this schedule.		
6 a Enter the minimum required contribution for this plan year (include any prior year accumulated funding deficiency not waived).....		6a
b Enter the amount contributed by the employer to the plan for this plan year.....		6b
c Subtract the amount in line 6b from the amount in line 6a. Enter the result (enter a minus sign to the left of a negative amount).....		6c
If you completed line 6c, skip lines 8 and 9.		
7 Will the minimum funding amount reported on line 6c be met by the funding deadline? ☐ Yes ☐ No ☐ N/A		
8 If a change in actuarial cost method was made for this plan year pursuant to a revenue procedure or other authority providing automatic approval for the change or a class ruling letter, does the plan sponsor or plan administrator agree with the change? ☐ Yes ☐ No ☒ N/A		
Part III Amendments		
9 If this is a defined benefit pension plan, were any amendments adopted during this plan year that increased or decreased the value of benefits? If yes, check the appropriate box. If no, check the "No" box..... ☐ Increase ☐ Decrease ☐ Both ☒ No		
Part IV ESOPs (see instructions). If this is not a plan described under section 409(a) or 4975(e)(7) of the Internal Revenue Code, skip this Part.		
10 Were unallocated employer securities or proceeds from the sale of unallocated securities used to repay any exempt loan?..... ☐ Yes ☐ No		
11 a Does the ESOP hold any preferred stock?..... ☐ Yes ☐ No		
b If the ESOP has an outstanding exempt loan with the employer as lender, is such loan part of a "back-to-back" loan? (See instructions for definition of "back-to-back" loan.)..... ☐ Yes ☐ No		
12 Does the ESOP hold any stock that is not readily tradable on an established securities market?..... ☐ Yes ☐ No		
For Paperwork Reduction Act Notice, see the Instructions for Form 5500.		
Schedule R (Form 5500) 2022 v. 220413		

Part V Additional Information for Multiemployer Defined Benefit Pension Plans

13 Enter the following information for each employer that (1) contributed more than 5% of total contributions to the plan during the plan year or (2) was one of the top-ten highest contributors (measured in dollars). See instructions. *Complete as many entries as needed to report all applicable employers.*

a Name of contributing employer

b EIN

c Dollar amount contributed by employer

d Date collective bargaining agreement expires (If employer contributes under more than one collective bargaining agreement, check box ☐ and see instructions regarding required attachment. Otherwise, enter the applicable date.) Month _____ Day _____ Year _____

e Contribution rate information (If more than one rate applies, check this box ☐ and see instructions regarding required attachment. Otherwise, complete lines 13e(1) and 13e(2).)

(1) Contribution rate (in dollars and cents) _____

(2) Base unit measure: ☐ Hourly ☐ Weekly ☐ Unit of production ☐ Other (specify): _____

a Name of contributing employer

b EIN

c Dollar amount contributed by employer

d Date collective bargaining agreement expires (If employer contributes under more than one collective bargaining agreement, check box ☐ and see instructions regarding required attachment. Otherwise, enter the applicable date.) Month _____ Day _____ Year _____

e Contribution rate information (If more than one rate applies, check this box ☐ and see instructions regarding required attachment. Otherwise, complete lines 13e(1) and 13e(2).)

(1) Contribution rate (in dollars and cents) _____

(2) Base unit measure: ☐ Hourly ☐ Weekly ☐ Unit of production ☐ Other (specify): _____

a Name of contributing employer

b EIN

c Dollar amount contributed by employer

d Date collective bargaining agreement expires (If employer contributes under more than one collective bargaining agreement, check box ☐ and see instructions regarding required attachment. Otherwise, enter the applicable date.) Month _____ Day _____ Year _____

e Contribution rate information (If more than one rate applies, check this box ☐ and see instructions regarding required attachment. Otherwise, complete lines 13e(1) and 13e(2).)

(1) Contribution rate (in dollars and cents) _____

(2) Base unit measure: ☐ Hourly ☐ Weekly ☐ Unit of production ☐ Other (specify): _____

a Name of contributing employer

b EIN

c Dollar amount contributed by employer

d Date collective bargaining agreement expires (If employer contributes under more than one collective bargaining agreement, check box ☐ and see instructions regarding required attachment. Otherwise, enter the applicable date.) Month _____ Day _____ Year _____

e Contribution rate information (If more than one rate applies, check this box ☐ and see instructions regarding required attachment. Otherwise, complete lines 13e(1) and 13e(2).)

(1) Contribution rate (in dollars and cents) _____

(2) Base unit measure: ☐ Hourly ☐ Weekly ☐ Unit of production ☐ Other (specify): _____

a Name of contributing employer

b EIN

c Dollar amount contributed by employer

d Date collective bargaining agreement expires (If employer contributes under more than one collective bargaining agreement, check box ☐ and see instructions regarding required attachment. Otherwise, enter the applicable date.) Month _____ Day _____ Year _____

e Contribution rate information (If more than one rate applies, check this box ☐ and see instructions regarding required attachment. Otherwise, complete lines 13e(1) and 13e(2).)

(1) Contribution rate (in dollars and cents) _____

(2) Base unit measure: ☐ Hourly ☐ Weekly ☐ Unit of production ☐ Other (specify): _____

a Name of contributing employer

b EIN

c Dollar amount contributed by employer

d Date collective bargaining agreement expires (If employer contributes under more than one collective bargaining agreement, check box ☐ and see instructions regarding required attachment. Otherwise, enter the applicable date.) Month _____ Day _____ Year _____

e Contribution rate information (If more than one rate applies, check this box ☐ and see instructions regarding required attachment. Otherwise, complete lines 13e(1) and 13e(2).)

(1) Contribution rate (in dollars and cents) _____

(2) Base unit measure: ☐ Hourly ☐ Weekly ☐ Unit of production ☐ Other (specify): _____

14	Enter the number of deferred vested and retired participants (inactive participants), as of the beginning of the plan year, whose contributing employer is no longer making contributions to the plan for:		
	a The current plan year. Check the box to indicate the counting method used to determine the number of inactive participants: ☐ last contributing employer ☐ alternative ☐ reasonable approximation (see instructions for required attachment).....	14a	
	b The plan year immediately preceding the current plan year. ☐ Check the box if the number reported is a change from what was previously reported (see instructions for required attachment)	14b	
	c The second preceding plan year. ☐ Check the box if the number reported is a change from what was previously reported (see instructions for required attachment)	14c	
15	Enter the ratio of the number of participants under the plan on whose behalf no employer had an obligation to make an employer contribution during the current plan year to:		
	a The corresponding number for the plan year immediately preceding the current plan year.....	15a	
	b The corresponding number for the second preceding plan year.....	15b	
16	Information with respect to any employers who withdrew from the plan during the preceding plan year:		
	a Enter the number of employers who withdrew during the preceding plan year	16a	
	b If line 16a is greater than 0, enter the aggregate amount of withdrawal liability assessed or estimated to be assessed against such withdrawn employers.....	16b	
17	If assets and liabilities from another plan have been transferred to or merged with this plan during the plan year, check box and see instructions regarding supplemental information to be included as an attachment ☐		

Part VI	Additional Information for Single-Employer and Multiemployer Defined Benefit Pension Plans
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18	If any liabilities to participants or their beneficiaries under the plan as of the end of the plan year consist (in whole or in part) of liabilities to such participants and beneficiaries under two or more pension plans as of immediately before such plan year, check box and see instructions regarding supplemental information to be included as an attachment ☐
19	<p>If the total number of participants is 1,000 or more, complete lines (a) through (c)</p> <p>a Enter the percentage of plan assets held as: Stock: _____% Investment-Grade Debt: _____% High-Yield Debt: _____% Real Estate: _____% Other: _____%</p> <p>b Provide the average duration of the combined investment-grade and high-yield debt: ☐ 0-3 years ☐ 3-6 years ☐ 6-9 years ☐ 9-12 years ☐ 12-15 years ☐ 15-18 years ☐ 18-21 years ☐ 21 years or more</p> <p>c What duration measure was used to calculate line 19(b)? ☐ Effective duration ☐ Macaulay duration ☐ Modified duration ☐ Other (specify): _____</p>
20	<p>PBGC missed contribution reporting requirements. If this is a multiemployer plan or a single-employer plan that is not covered by PBGC, skip line 20.</p> <p>a Is the amount of unpaid minimum required contributions for all years from Schedule SB (Form 5500) line 40 greater than zero? ☐ Yes ☐ No</p> <p>b If line 20a is "Yes," has PBGC been notified as required by ERISA sections 4043(c)(5) and/or 303(k)(4)? Check the applicable box:</p> <p>☐ Yes.</p> <p>☐ No. Reporting was waived under 29 CFR 4043.25(c)(2) because contributions equal to or exceeding the unpaid minimum required contribution were made by the 30th day after the due date.</p> <p>☐ No. The 30-day period referenced in 29 CFR 4043.25(c)(2) has not yet ended, and the sponsor intends to make a contribution equal to or exceeding the unpaid minimum required contribution by the 30th day after the due date.</p> <p>☐ No. Other. Provide explanation _____</p>

The Restated Noncontributory Retirement Plan for Cooperatives

Administered By Associated Benefits Corporation
(Participating Employer—Green Plains Grain Company LLC,
Group 177)

Employer Identification Number: 26-2042403
Plan Number: 020

Financial Statements as of and for the Years Ended
March 31, 2023 and 2022, Supplemental Schedules
as of and for the Year Ended March 31, 2023, and
Independent Auditor's Report

THE RESTATED NONCONTRIBUTORY RETIREMENT PLAN FOR COOPERATIVES

**Administered By Associated Benefits Corporation
(Participating Employer—Green Plains Grain Company LLC, Group 177)**

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INDEPENDENT AUDITOR'S REPORT

To the Board of Directors
Associated Benefits Corporation
Plan Administrator for The Restated Noncontributory Retirement Plan For Cooperatives
(Participating Employer—Green Plains Grain Company LLC, Group 177)

Scope and Nature of the ERISA Section 103(a)(3)(C) Audit

We have performed audits of the financial statements of The Restated Noncontributory Retirement Plan For Cooperatives (Participating Employer—Green Plains Grain Company LLC, Group 177) (the “Plan”), an employee benefit plan subject to the Employee Retirement Income Security Act of 1974 (ERISA), as permitted by ERISA Section 103(a)(3)(C) (ERISA Section 103(a)(3)(C) audit). The financial statements comprise the statements of net assets available for benefits as of March 31, 2023 and 2022, and the related statements of changes in net assets available for benefits for the years then ended, and the related notes to the financial statements.

Management, having determined it is permissible in the circumstances, has elected to have the audits of the Plan’s financial statements performed in accordance with ERISA Section 103(a)(3)(C) pursuant to 29 CFR 2520.103-8 of the Department of Labor’s Rules and Regulations for Reporting and Disclosure under ERISA. As permitted by ERISA Section 103(a)(3)(C), our audits need not extend to any statements or information related to assets held for investment of the Plan (investment information) by a bank or similar institution or insurance carrier that is regulated, supervised, and subject to periodic examination by a state or federal agency, provided that the statements or information regarding assets so held are prepared and certified to by the bank or similar institution or insurance carrier in accordance with 29 CFR 2520.103-5 of the Department of Labor’s Rules and Regulations for Reporting and Disclosure under ERISA (qualified institution).

Management has obtained certifications from qualified institutions as of March 31, 2023 and 2022, and for the years then ended, stating that the certified investment information, as described in Note 3 to the financial statements, is complete and accurate.

Opinion

In our opinion, based on our audits and on the procedures performed as described in the Auditor’s Responsibilities for the Audit of the Financial Statements section

- The amounts and disclosures in the accompanying financial statements, other than those agreed to or derived from the certified investment information, are presented fairly, in all material respects, in accordance with accounting principles generally accepted in the United States of America.
- The information in the accompanying financial statements related to assets held by and certified to by qualified institutions agrees to, or is derived from, in all material respects, the information prepared and certified by institutions that management determined meets the requirements of ERISA Section 103(a)(3)(C).

Basis for Opinion

We conducted our audits in accordance with auditing standards generally accepted in the United States of America (GAAS). Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are required to be independent of the Plan and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements relating to our audits. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our ERISA Section 103(a)(3)(C) audit opinion.

Responsibilities of Management for the Financial Statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with accounting principles generally accepted in the United States of America, and for the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error. Management's election of the ERISA Section 103(a)(3)(C) audit does not affect management's responsibility for the financial statements.

In preparing the financial statements, management is required to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about the Plan's ability to continue as a going concern for one year after the date that the financial statements are available to be issued.

Management is also responsible for maintaining a current plan instrument, including all plan amendments, administering the Plan, and determining that the Plan's transactions that are presented and disclosed in the financial statements are in conformity with the Plan's provisions, including maintaining sufficient records with respect to each of the participants, to determine the benefits due or which may become due to such participants.

Auditor's Responsibilities for the Audit of the Financial Statements

Except as described in the Scope and Nature of the ERISA Section 103(a)(3)(C) Audit section of our report, our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with GAAS will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment made by a reasonable user based on the financial statements.

In performing an audit in accordance with GAAS, we:

- Exercise professional judgment and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements.

- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Plan's internal control. Accordingly, no such opinion is expressed.
- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the financial statements.
- Conclude whether, in our judgment, there are conditions or events, considered in the aggregate, that raise substantial doubt about the Plan's ability to continue as a going concern for a reasonable period of time.

Our audits did not extend to the certified investment information, except for obtaining and reading the certifications, comparing the certified investment information with the related information presented and disclosed in the financial statements, and reading the disclosures relating to the certified investment information to assess whether they are in accordance with the presentation and disclosure requirements of accounting principles generally accepted in the United States of America.

Accordingly, the objective of an ERISA Section 103(a)(3)(C) audit is not to express an opinion about whether the financial statements as a whole are presented fairly, in all material respects, in accordance with accounting principles generally accepted in the United States of America.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings, and certain internal control-related matters that we identified during the audit.

Other Matter—Supplemental Schedules Required by ERISA

The supplemental schedules of Form 5500, Schedule H, Part IV, Line 4i—Schedule of Assets (Held at End of Year) as of March 31, 2023 and Form 5500, Schedule H, Part IV, Line 4j—Schedule of Reportable Transactions for the year ended March 31, 2023 are presented for purposes of additional analysis and are not a required part of the financial statements but are supplementary information required by the Department of Labor's Rules and Regulations for Reporting and Disclosure under ERISA. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the financial statements. The information included in the supplemental schedules, other than that agreed to or derived from the certified investment information, has been subjected to auditing procedures applied in the audit of the financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the financial statements or to the financial statements themselves, and other additional procedures in accordance with GAAS. For information included in the supplemental schedules that agreed to or is derived from the certified investment information, we compared such information to the related certified investment information.

In forming our opinion on the supplemental schedules, we evaluated whether the supplemental schedules, other than the information agreed to or derived from the certified investment information, including its form and content, is presented in conformity with the Department of Labor's Rules and Regulations for Reporting and Disclosure under ERISA.

In our opinion:

- The form and content of the supplemental schedules, other than the information in the supplemental schedules that agreed to or is derived from the certified investment information, are presented, in all material respects, in conformity with the Department of Labor's Rules and Regulations for Reporting and Disclosure under ERISA.
- The information in the supplemental schedules related to assets held by and certified to by qualified institutions agrees to, or is derived from, in all material respects, the information prepared and certified by institutions that management determined meets the requirements of ERISA Section 103(a)(3)(C).

Deloitte & Touche LLP

January 9, 2024

**THE RESTATED NONCONTRIBUTORY RETIREMENT PLAN
FOR COOPERATIVES**
Administered By Associated Benefits Corporation
(Participating Employer—Green Plains Grain Company LLC, Group 177)

**STATEMENTS OF NET ASSETS AVAILABLE FOR BENEFITS
AS OF MARCH 31, 2023 AND 2022**

	2023	2022
ASSETS:		
Investments—at fair value	\$ 4,579,545	\$ 5,465,616
Contribution receivable	16,000	
Accrued income	<u>2,386</u>	<u>7</u>
NET ASSETS AVAILABLE FOR BENEFITS	<u>\$ 4,597,931</u>	<u>\$ 5,465,623</u>

See notes to financial statements.

**THE RESTATED NONCONTRIBUTORY RETIREMENT PLAN
FOR COOPERATIVES**
Administered By Associated Benefits Corporation
(Participating Employer—Green Plains Grain Company LLC, Group 177)

**STATEMENTS OF CHANGES IN NET ASSETS AVAILABLE FOR BENEFITS
FOR THE YEARS ENDED MARCH 31, 2023 AND 2022**

	2023	2022
INVESTMENT INCOME (LOSS):		
Investment income	\$ 60,359	\$ 92,377
Net appreciation (depreciation) in fair value of investments	<u>(465,670)</u>	<u>228,068</u>
Net investment income (loss)	<u>(405,311)</u>	<u>320,445</u>
EMPLOYER CONTRIBUTIONS	<u>79,000</u>	<u>23,824</u>
DEDUCTIONS:		
Benefits paid directly to participants	476,392	512,958
Administrative expenses	<u>64,989</u>	<u>90,323</u>
Total deductions	<u>541,381</u>	<u>603,281</u>
DECREASE IN NET ASSETS	(867,692)	(259,012)
NET ASSETS AVAILABLE FOR BENEFITS:		
Beginning of year	<u>5,465,623</u>	<u>5,724,635</u>
End of year	<u>\$ 4,597,931</u>	<u>\$ 5,465,623</u>

See notes to financial statements.

THE RESTATED NONCONTRIBUTORY RETIREMENT PLAN FOR COOPERATIVES

Administered By Associated Benefits Corporation
(Participating Employer—Green Plains Grain Company LLC, Group 177)

NOTES TO FINANCIAL STATEMENTS AS OF AND FOR THE YEARS ENDED MARCH 31, 2023 AND 2022

1. DESCRIPTION OF THE PLAN

The following description of The Restated Noncontributory Retirement Plan for Cooperatives (Participating Employer—Green Plains Grain Company LLC, Group 177) (the “Plan”) is provided for general informational purposes only. Participants should refer to the Plan document for a more complete description of the Plan’s information.

General—The Plan is a noncontributory defined benefit plan administered by Associated Benefits Corporation (the “Plan Administrator”) that covers substantially all full-time employees of Green Plains Grain Company LLC. The Plan was frozen as of January 1, 2009. Employees who worked 1,000 hours or more per year were eligible on the first day of the first or the seventh month of the Plan year following the attainment of age 21 and 4 months of service. The Plan is subject to the provisions of the Employee Retirement Income Security Act of 1974 (ERISA).

Pension Benefits—Participants can retire with their full pension on the first day of the month coincident with or immediately following their 65th birthday (normal retirement), attainment of age 62 with at least 5 years of service, or upon satisfying the Rule of 85 by reaching a combined total of age and years of service of 85 total years.

The monthly pension benefit under the Plan is equal to 1.1% of average monthly earnings, as defined, multiplied by years of credited service after May 1, 1983. Credited service for participants of the Plan on and after May 1, 1983, shall include the participant’s years of continuous employment for an employer immediately prior to the date of Plan membership. The normal form is a pension payable for the participant’s lifetime. However, an actuarially reduced joint and 50% survivorship basis with 120 guaranteed monthly payments is the automatic form for married participants unless both the participant and spouse elect another form.

Participants become vested in the employer contributions and earnings thereon at the rate of 20% after completion of two years of service and 20% for each year of service thereafter. Participants become fully vested after six years of service.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Basis of Accounting—The accompanying financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America (GAAP).

Use of Estimates—The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities and changes therein, disclosure of contingent assets and liabilities, and the actuarial present value of accumulated plan benefits and changes therein at the date of the financial statements. Actual results could differ from those estimates.

Risks and Uncertainties—The Plan utilizes various investment securities including mutual funds, money market funds, and collective trust funds. Investment securities, in general, are exposed to various risks, such as interest rate risk, credit risk, and overall market volatility. Market risks include global events which could impact the value of investment securities, such as a pandemic or international conflict. Due to the level of risk associated with certain investment securities, it is reasonably possible that changes in the values of investment securities will occur in the near term and that such changes could materially affect the amounts reported in the financial statements.

Plan contributions are made and the actuarial present value of accumulated plan benefits are reported based on certain assumptions pertaining to interest rates, inflation rates, and employee demographics, all of which are subject to change. Due to uncertainties inherent in the estimations and assumptions process, it is at least reasonably possible that changes in these estimates and assumptions in the near term would be material to the financial statements.

Concentrations of Investments—The Plan has a significant concentration in the following investments at March 31, 2023 and 2022. A significant decline in the market value of these investments could significantly affect the net assets available for benefits.

	2023	2022
PRINCIPAL/BLACKROCK S&P 500 INDEX CIT N	\$ 546,528	\$ 763,748
PRINCIPAL/FEDERATED TOTAL RETURN BOND CIT N	463,940	402,549
METROPOLITAN WEST TOTAL RETURN BOND FUND CLASS I	460,499	398,203

Investment Valuation and Income Recognition—Investments are stated at fair value. Fair value of a financial instrument is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. See Note 6 for description of valuation methods.

Purchases and sales of securities are recorded on a trade-date basis. Interest income is recorded on the accrual basis. Dividends are recorded on the ex-dividend date. Investment income includes dividends, interest, and revenue sharing amounts earned during the year. Net appreciation (depreciation) includes the Plan's gains and losses on investments bought and sold as well as held during the year.

All investment management and transaction fees directly related to the Plan investments are paid by the Plan. Management fees and operating expenses charged to the Plan for investments are deducted from income earned on a daily basis and are not separately reflected. Consequently, investment management fees and operating expenses are reflected as a reduction of investment return for such investments.

Administrative Expenses—Administrative expenses consisting of actuarial, legal, trustee, and Pension Benefit Guarantee Corporation (PBGC) fees are paid from Plan assets. Other administrative expenses, including expenses of the Plan Administrator, are paid by the Participating Employer.

Payment of Benefits—Benefit payments to participants are recorded upon distribution.

Subsequent Events—Subsequent events were evaluated through January 9, 2024, the date the financial statements were available to be issued. No events occurred that require additional disclosure or adjustments to the Plan’s financial statements.

3. CERTIFIED INVESTMENT INFORMATION

The following is a summary of the certified investment information included in the Plan’s financial statements and supplemental schedules that was prepared by or derived from information prepared by Principal Trust Company (“Principal”) as of March 31, 2023 and 2022, and for the year ended March 31, 2023, and the period February 23, 2022 through March 31, 2022, and Wells Fargo Bank, N.A. (“Wells Fargo”) for the period April 1, 2021 through February 22, 2022, the trustees of the Plan, and furnished to the Plan Administrator. The Plan Administrator has obtained certifications from the trustees that such information is complete and accurate.

	2023	2022
Statements of net assets available for benefits:		
Investments—at fair value	\$ 4,579,545	\$ 5,465,616
Accrued income	2,386	7
Statements of changes in net assets available for benefits:		
Investment income	60,359	92,377
Net appreciation (depreciation) in fair value of investments	(465,670)	228,068

Supplemental schedules: All investment balances and information included in the supplemental schedules.

Note 6: All investment balances and investment information, excluding the level of investments, the unfunded commitment, redemption frequency, other redemption restrictions, and redemption notice period.

4. FUNDING POLICY

Contributions to provide benefits under the Plan are made solely by the Participating Employer. The Participating Employer’s funding policy is to make cash contributions to the Plan in amounts as determined by the Plan’s independent actuary. The Participating Employer met the minimum funding requirements of ERISA for the years ended March 31, 2023 and 2022. For financial statement purposes, all employer contributions made to meet the minimum funding requirements of ERISA are considered attributable to the current plan year and are accrued in the financial statements if not paid by year end. For PBGC funding purposes, all employer contributions made to the Plan prior to the filing of the Form 5500 are considered attributable to the previous year.

5. ACCUMULATED PLAN BENEFITS

Accumulated plan benefits are those future periodic payments that are attributable under the Plan’s provisions to the employees’ compensation and services employees have rendered as of the valuation date. Accumulated plan benefits include benefits expected to be paid to (1) retired or terminated employees or their beneficiaries and (2) present employees or their beneficiaries. Benefits under the Plan are accumulated based on employees’ compensation during each year of credited service. The accumulated plan benefits for active employees will equal the accumulation, with interest, of the annual benefit accruals as of the benefit information date. Benefits payable as a result of retirement, death, disability or termination of employment are included, to the extent they are deemed attributable to employee service rendered to the valuation date.

The actuarial present value of accumulated plan benefits is determined by an independent actuary. The amount results from applying actuarial assumptions to adjust the accumulated plan benefits to reflect the time value of money (through discounts for interest) and the probability of payment (by means of decrements such as for death, disability, withdrawal, or retirement) between the valuation date and the expected date of payment.

The actuarial present value of accumulated plan benefits presented in the accompanying financial statements are presented using the beginning of year benefit information date. The actuarial present value of accumulated plan benefits below is measured as of April 1, 2022. Had the valuation been performed as of March 31, 2022, there would be no material differences.

The significant actuarial assumptions used in the valuations as of March 31, 2022 were as follows:

Interest rate	6.81%
Mortality	Pri-2012 sex-distinct, separate employee and retiree table(s) with contingent survivor adjustments for existing survivors and no collar adjustments applied, with generational mortality improvements based on the MP 2021 improvement scale.
Retirement rate	On a scale ranging from 6% at age 55 to 100% at age 70 for active employees, and 100% when eligible for unreduced retirement.

For the year ended March 31, 2022, the change in discount rate is reflected as assumption changes resulting in a net increase in the actuarial present value of accumulated plan benefits.

The actuarial present value of accumulated plan benefits as of March 31, 2022, using the unit credit cost method, is as follows:

Vested:	
Beneficiaries and retirees	\$ 3,255,710
Other participants (including participants active at other groups)	<u>1,582,426</u>
Total actuarial present value of accumulated plan benefits	<u>\$ 4,838,136</u>

The changes in the actuarial present value of accumulated plan benefits for the year ended March 31, 2022 are as follows:

Actuarial present value of accumulated plan benefits at beginning of year	<u>\$ 4,979,258</u>
Increase (decrease) during the year attributable to:	
Changes in actuarial assumptions	20,181
Actuarial losses	18,036
Interest due to the decrease in the discount period	326,344
Plan amendment	7,275
Benefits paid	<u>(512,958)</u>
Net change	<u>(141,122)</u>
Actuarial present value of accumulated plan benefits at end of year	<u>\$ 4,838,136</u>

The actuarial assumptions are based on the presumption that the Plan will continue. Were the Plan to terminate, different actuarial assumptions and other factors might be applicable in determining the actuarial present value of accumulated Plan benefits. Due to uncertainties inherent in the estimations and assumptions process, it is at least reasonably possible that certain changes in these estimates and assumptions could be material to the financial statements.

6. FAIR VALUE MEASUREMENTS

ASC 820, *Fair Value Measurements and Disclosures*, provides a framework for measuring fair value. That framework provides a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value, as follows: Level 1, which refers to securities valued using unadjusted quoted prices from active markets for identical assets; Level 2, which refers to securities not traded on an active market but for which observable market inputs are readily available; and Level 3, which refers to securities valued based on unobservable inputs. Assets are classified in their entirety based on the lowest level of input that is significant to the fair value measurement.

Asset Valuation Techniques—Valuation techniques maximize the use of observable inputs and minimize the use of unobservable inputs. The following is a description of the valuation methodologies used for investments measured at fair value.

Mutual Funds—Valued at the daily closing price as reported by the fund. Mutual funds held by the Plan are open-ended mutual funds that are registered with the Securities and Exchange Commission. These funds are required to publish their daily net asset value and to transact at that price. The mutual funds held by the Plan are deemed to be actively traded.

Money Market Fund—Held primarily in short term commingled funds, which are valued at cost plus accrued interest, which approximates fair value. Based on the valuation technique, it is categorized as Level 2.

Collective Trust Funds—Valued at the net asset value (NAV) of units of the funds. The net asset value as provided by the trustees is used as a practical expedient to estimate fair value. The net asset value is based on the fair value of the underlying investments held by the fund less its liabilities. This practical expedient is not used when it is determined to be probable that the fund will sell the investment for an amount different than the reported net asset value. Purchases and sales may occur daily. Were the Plan to initiate a full redemption of the collective trust fund, the investment advisor reserves the right to temporarily delay withdrawal from the trust in order to confirm that securities liquidations will be carried out in an orderly business manner. As the practical expedient is utilized, these funds are not included in the fair value leveling table, but are included as a reconciling line item to the statements of net assets available for benefits. The Plan does not have any unfunded commitments with the collective trust funds, redemption frequency is immediate, and there are no redemption restrictions or notice periods of the collective trust funds.

The following tables set forth by level within the fair value hierarchy a summary of the Plan's investments measured at fair value on a recurring basis at March 31, 2023 and 2022.

Fair Value Measurements at March 31, 2023			
	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
			Total
Mutual funds	<u>\$ 1,715,800</u>	<u>\$ -</u>	<u>\$ -</u>
Funds valued at NAV			<u>2,863,745</u>
Total			<u>\$ 4,579,545</u>

Fair Value Measurements at March 31, 2022			
	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
			Total
Mutual funds	\$ 1,970,398	\$ -	\$ -
Money market fund		<u>52,719</u>	<u>52,719</u>
	<u>\$ 1,970,398</u>	<u>\$ 52,719</u>	<u>\$ -</u>
Funds valued at NAV			<u>3,442,499</u>
Total			<u>\$ 5,465,616</u>

7. EXEMPT PARTY-IN-INTEREST TRANSACTIONS

Certain Plan investments are shares of collective trust funds managed by Principal and Wells Fargo. Principal and Wells Fargo are the trustees as defined by the Plan and, therefore, these transactions qualify as party-in-interest transactions. Fees paid by the Plan for the investment management services are included as a reduction of the return earned on each fund.

8. FEDERAL INCOME TAX STATUS

The Internal Revenue Service (IRS) has determined and informed the Participating Employer and the Plan Administrator by a letter dated July 15, 2015, that the Plan and related trust were designed in accordance with applicable regulations of the Internal Revenue Code (IRC). The Plan has been amended since receiving the determination letter. In December 2016, the IRS began publishing a Required Amendments List for individually designed plans which specifies changes in qualification requirements. The list is published annually and requires plans to be amended for each item on the list, as applicable, to retain its tax exempt status. The Participating Employer and the Plan Administrator believe that the Plan is currently designed and operated in compliance with the applicable requirements of the IRC and the Plan and related trust continue to be tax-exempt. Therefore, no provision for income taxes has been included in the Plan's financial statements.

9. PLAN TERMINATION

Although it has not expressed any intention to do so, the Participating Employer has the right under the Plan, in certain circumstances, to discontinue its contributions at any time and to terminate the Plan subject to the provisions set forth in ERISA. In the event that the Plan is terminated, the net assets of the Plan will be allocated for payment of plan benefits to the participants in an order of priority determined in accordance with ERISA, applicable regulations thereunder, and the Plan document.

Certain benefits under the Plan are insured by the PBGC if the Plan terminates. Generally, the PBGC guarantees most vested normal age retirement benefits, early retirement benefits, and certain disability and survivor's pensions. However, the PBGC does not guarantee all types of benefits under the Plan, and the amount of benefit protection is subject to certain limitations. Vested benefits under the Plan are guaranteed at the level in effect on the date of the Plan's termination, subject to a statutory ceiling on the amount of an individual's monthly benefit.

Whether all participants receive their benefits if the Plan is terminated at some future time will depend on the sufficiency, at that time, of the Plan's net assets to provide those benefits, the priority of those benefits to be paid, and the level and type of benefits guaranteed by the PBGC at that time. Some benefits may be fully or partially provided for by the then existing assets and the PBGC guaranty, while other benefits may not be provided for at all.

* * * * *

SUPPLEMENTAL SCHEDULES

THE RESTATED NONCONTRIBUTORY RETIREMENT PLAN FOR COOPERATIVES
Administered By Associated Benefits Corporation
(Participating Employer—Green Plains Grain Company LLC, Group 177)

EIN NUMBER: 26-2042403
PLAN NUMBER: 020

FORM 5500, SCHEDULE H, PART IV, LINE 4i—SCHEDULE OF ASSETS (HELD AT END OF YEAR)
AS OF MARCH 31, 2023

(a) (b) Identity of Issue, Borrower, Lessor or Similar Party	(c) Description of Investment Including Maturity Date, Rate of Interest, Collateral, Par or Maturity Value	(d) Cost	(e) Current Value
* PRINCIPAL/BLACKROCK SHORT TERM INVESTMENT FUND S1 * PRINCIPAL/TROWE PRICE INST LCG MGD C CIT N * PRINCIPAL/MULTI-MANAGER SMALL CAP CI CIT N * PRINCIPAL/MFS VALUE CIT N * PRINCIPAL/FEDERATED TOTAL RETURN BOND CIT N * PRINCIPAL/BLACKROCK S&P MIDCAP INDEX CIT N * PRINCIPAL/BLACKROCK S&P 500 INDEX CIT N * PRINCIPAL/BLACKROCK INTERNATIONAL EQUITY INDEX CIT N * PRINCIPAL/ALLIANCE BERNSTEIN LARGE CAP GROWTH CIT ALLSPRING CORE BOND CIT N	Common/collective trust Common/collective trust Common/collective trust Common/collective trust Common/collective trust Common/collective trust Common/collective trust Common/collective trust Common/collective trust Common/collective trust	\$ 58,791 86,349 94,242 173,728 439,937 188,052 416,178 149,948 159,448 447,761	\$ 58,791 160,288 157,597 309,286 463,940 317,524 546,528 225,742 166,388 457,661
		<u>2,214,433</u>	<u>2,863,745</u>
FIDELITY EMERGING MARKETS INDEX FUND CLASS FAI PIMCO HIGH YIELD FUND INSTITUTIONAL SHARES INVESCO OPPENHEIMER INTERNATIONAL BOND FUND CLASS R6 ALPS/CORECOMMODITY MANAGEMENT COMPLETE COMMODITIES STRATEGY FUND EUROPACIFIC GROWTH FUND CLASS R6 FIDELITY REAL ESTATE INDEX FUND CLASS INS METROPOLITAN WEST TOTAL RETURN BOND FUND CLASS I	Registered investment company (mutual fund) Registered investment company (mutual fund) Registered investment company (mutual fund) Registered investment company (mutual fund) Registered investment company (mutual fund) Registered investment company (mutual fund) Registered investment company (mutual fund)	122,243 175,607 253,571 211,208 214,774 330,074 513,733	114,521 159,417 211,097 218,976 227,446 323,844 460,499
		1,821,210	1,715,800
TOTAL INVESTMENTS		<u>\$5,191,494</u>	<u>\$4,579,545</u>

* Party-in-interest.

See accompanying independent auditor's report.

THE RESTATED NONCONTRIBUTORY RETIREMENT PLAN FOR COOPERATIVES
Administered By Associated Benefits Corporation
(Participating Employer—Green Plains Grain Company LLC, Group 177)

EIN NUMBER: 26-2042403
PLAN NUMBER: 020

FORM 5500, SCHEDULE H, PART IV, LINE 4j—SCHEDULE OF REPORTABLE TRANSACTIONS
FOR THE YEAR ENDED MARCH 31, 2023

(a) Identity of Party Involved	(b) Description of Asset	Number of Transactions	(c) Purchase Price	(d) Selling Price	(g) Cost of Asset	(h) Current Value of Asset on Transaction Date	(i) Net Gain (Loss)
SERIES OF TRANSACTIONS:							
* Principal	Blackrock Short-term Investment Fund	44	\$724,720	\$ -	\$ -	\$724,720	\$ -
* Principal	Blackrock Short-term Investment Fund	32		718,646	718,646	718,646	
* Principal	Blackrock S&P 500 Index CIT	6	221,062			221,062	
* Principal	Blackrock S&P 500 Index CIT	9		372,002	281,779	372,002	90,223
Met West	Total Return Bond CI I #512	12	13,742			13,742	
Met West	Total Return Bond CI I #512	3	169,861			169,861	
Met West	Total Return Bond CI I #512	5		89,909	102,334	89,909	(12,425)
* Principal	Trowe Price Inst Lcg Mgd C	3	60,661			60,661	
* Principal	Trowe Price Inst Lcg Mgd C	4		279,192	154,716	279,192	124,476
* Principal	Core Bond CIT N	4	175,910			175,910	
* Principal	Core Bond CIT N	7		101,211	101,191	101,211	20

* Party-in-interest.

Note: Columns (e) and (f) are not applicable and have been omitted.

See accompanying independent auditor's report.

Plan Name: The Restated Noncontributory Retirement Plan for Cooperatives
Plan Sponsor EIN: 26-2042403
ERISA 3-digit Plan #: 020
Plan Year Ending: 03/31/2023

The required attachment marked with an "X" in the Attachment column is included within the Accountant's Opinion attachment to Schedule H, Part III, Line 3, which consists of the entire audit report issued by the plan's Independent Qualified Public Accountant ("IQPA").

Form/Schedule	Line #	Description	Attachment
5500 Sch. H	Line 3	Financial Statements used in formulating the IQPA's opinion	X
5500 Sch. H	Line 4i	Schedule of Assets (Held at End of Year)	X
5500 Sch. H	Line 4i	Schedule of Assets (Acquired and Disposed of Within Year)	
5500 Sch. H	Line 4j	Schedule of Reportable Transactions	X
5500 Sch. H	Line 4a	Schedule of Delinquent Participant Contributions	

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Plan Sponsor EIN: 26-2042403
ERISA 3-digit Plan #: 020
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Form/Schedule	Line #	Description	Attachment
5500 Sch. SB		Actuarial Assumptions and Methods	X
5500 Sch. SB		Summary of Plan Provisions	X
5500 Sch. SB		Statement of Enrolled Actuary	X
5500 Sch. SB	7	Explanation of Discrepancy in Prior Year Funding Standard Carryover Balance or Prefunding Balance	
5500 Sch. SB	19	Discounted Employer Contributions	
5500 Sch. SB	22	Description of Weighted Average Retirement Age	X
5500 Sch. SB	24	Change in Actuarial Assumptions	X
5500 Sch. SB	25	Change in Method	
5500 Sch. SB	26	Schedule of Active Participant Data	
5500 Sch. SB	32	Schedule of Amortization Bases	X

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5500 Sch. SB	26	Schedule of Active Participant Data	
5500 Sch. SB	32	Schedule of Amortization Bases	X

Pool B (60% return seeking/40% fixed income)

AS OF MARCH 31, 2023

Category/Fund	Asset Class	Ticker	Target Allocation	Expense Ratio	Revenue Share	Net Exp Ratio
Equities:						
PrincipalAB Large Cap Growth CIT N	Large Cap Growth	n/a	3.43%	0.430%	0.00%	0.430%
PrincipalTRP Intl LC Gro Mgd CITN	Large Cap Growth	n/a	3.43%	0.361%	0.00%	0.361%
PrincipalBlackRock S&P 500 Mdx CIT N	Large Cap Core-passive	n/a	11.80%	0.022%	0.00%	0.022%
PrincipalMFS Value CIT N	Large Cap Value	n/a	6.85%	0.401%	0.00%	0.401%
PrincipalBlackRock S&P MDC Mdx CIT N	Midcap Core-passive	n/a	6.85%	0.034%	0.00%	0.034%
PrincipalMulti-Mangr SC CIT N	Small Core	n/a	3.65%	0.640%	0.00%	0.640%
PrincipalBlackRock Intl Eq Mdx CIT N	Foreign Lg Bl-passive	n/a	4.80%	0.061%	0.00%	0.061%
American Funds Europacific Growth R6	Foreign Large Blend	RERGX	4.80%	0.460%	0.00%	0.460%
Fidelity® Emerging Markets Mdx	Diver. Em Mkts-passive	FPAIDX	2.40%	0.075%	0.00%	0.075%
			48.00%			
Core Fixed Income:						
Alpspring Core Bond CIT N	Fixed - intermediate	n/a	10.65%	0.200%	0.00%	0.200%
Metropolitan West Total Return Bd I	Fixed - intermediate	MWTDX	10.65%	0.440%	0.10%	0.343%
PrincipalFederated Tot Ret Bond CIT N	Fixed - intermediate	n/a	10.70%	0.191%	0.00%	0.191%
			32.00%			
Specialty Fixed Income:						
PLMCO High Yield Intl	High Yield	PHVYX	3.35%	0.560%	0.00%	0.560%
Invesco International Bond R6	Dev Mkts Intl Fixed	QIBDX	4.65%	0.710%	0.00%	0.710%
			8.00%			
Real Assets and Alternatives:						
Fidelity® Real Estate Index	Real Estate-passive	FSRXIX	7.20%	0.070%	0.00%	0.070%
ALPS/CorComdy Mgmt ComptComdy Strat I	Commodities	JCRDX	4.80%	1.080%	0.16%	0.925%
			12.00%			
			100.00%			
Composite Expense Ratio:			0.265%			

*Multi-Manager Small Cap Fund includes: Invesco Small Cap Growth, JP Morgan Small Cap Equity and Goldman Sachs Small Cap Value Strategies

Plan Name: The Restated Noncontributory Retirement Plan for Cooperatives
Plan Sponsor EIN: 26-2042403
ERISA 3-digit Plan #: 020
Plan Year Ending: 03/31/2023

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5500 Sch. SB	26	Schedule of Active Participant Data	
5500 Sch. SB	32	Schedule of Amortization Bases	X

SCHEDULE SB (Form 5500) <small>Department of the Treasury Internal Revenue Service</small> <small>Department of Labor Employee Benefits Security Administration</small> <small>Pension Benefit Guaranty Corporation</small>	Single-Employer Defined Benefit Plan Actuarial Information This schedule is required to be filed under section 104 of the Employee Retirement Income Security Act of 1974 (ERISA) and section 6059 of the Internal Revenue Code (the Code). File as an attachment to Form 5500 or 5500-SF.	OMB No 1210-0110 2022 This Form is Open to Public Inspection
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For calendar plan year 2022 or fiscal plan year beginning 04/01/2022 and ending 03/31/2023

Round off amounts to nearest dollar.

Caution: A penalty of \$1,000 will be assessed for late filing of this report unless reasonable cause is established.

A Name of plan THE RESTATED NONCONTRIBUTORY RETIREMENT PLAN FOR COOPERATIVES	B Three-digit plan number (PN)	020
C Plan sponsor's name as shown on line 2a of Form 5500 or 5500-SF GREEN PLAINS GRAIN COMPANY LLC	D Employer Identification Number (EIN) 26-2042403	
E Type of plan: ☒ Single ☐ Multiple-A ☐ Multiple-B		
F Prior year plan size: ☐ 100 or fewer ☒ 101-500 ☐ More than 500		

Part I Basic Information			
1 Enter the valuation date: Month <u>04</u> Day <u>01</u> Year <u>2022</u>			
2 Assets:			
a Market value	2a	5,480,555	
b Actuarial value	2b	4,981,073	
3 Funding target/participant count breakdown		(1) Number of participants	(2) Vested Funding Target
a For retired participants and beneficiaries receiving payment		75	3,602,694
b For terminated vested participants		77	1,828,979
c For active participants		0	0
d Total		152	5,431,673
4 If the plan is in at-risk status, check the box and complete lines (a) and (b) ☐			
a Funding target disregarding prescribed at-risk assumptions		4a	
b Funding target reflecting at-risk assumptions, but disregarding transition rule for plans that have been in at-risk status for fewer than five consecutive years and disregarding loading factor		4b	
5 Effective interest rate		5	5.40%
6 Target normal cost			
a Present value of current plan year accruals		6a	0
b Expected plan-related expenses		6b	21,468
c Total (line 6a + line 6b)		6c	21,468

Statement by Enrolled Actuary

To the best of my knowledge, the information supplied in this schedule and accompanying schedules, statements and attachments, if any, is complete and accurate. Each prescribed assumption was applied in accordance with applicable law and regulations. In my opinion, each other assumption is reasonable (taking into account the experience of the plan and reasonable expectations) and such other assumptions, in combination, offer my best estimate of anticipated experience under the plan.

SIGN HERE	<div style="text-align: center;"> Signature of actuary </div>	<div style="text-align: center;"> <u>12/20/2023</u> Date 2306654 Most recent enrollment number 917-346-0301 Telephone number (including area code) </div>
ANNA MAYZEL Type or print name of actuary		
MERCER Firm name		
1166 AVENUE OF THE AMERICAS NEW YORK NY 10036 Address of the firm		

If the actuary has not fully reflected any regulation or ruling promulgated under the statute in completing this schedule, check the box and see instructions ☐

For Paperwork Reduction Act Notice, see the Instructions for Form 5500 or 5500-SF.

Schedule SB (Form 5500) 2022
v. 220413

Part II		Beginning of Year Carryover and Prefunding Balances	
		(a) Carryover balance	(b) Prefunding balance
7	Balance at beginning of prior year after applicable adjustments (line 13 from prior year)	0	32,004
8	Portion elected for use to offset prior year's funding requirement (line 35 from prior year)	0	8,172
9	Amount remaining (line 7 minus line 8)	0	23,832
10	Interest on line 9 using prior year's actual return of <u>5.91</u> %	0	1,408
11	Prior year's excess contributions to be added to prefunding balance:		
	a Present value of excess contributions (line 38a from prior year)		0
	b(1) Interest on the excess, if any, of line 38a over line 38b from prior year Schedule SB, using prior year's effective interest rate of <u>5.57</u> %		0
	b(2) Interest on line 38b from prior year Schedule SB, using prior year's actual return		0
	c Total available at beginning of current plan year to add to prefunding balance		0
	d Portion of (c) to be added to prefunding balance		0
12	Other reductions in balances due to elections or deemed elections	0	0
13	Balance at beginning of current year (line 9 + line 10 + line 11d – line 12)	0	25,240

Part III		Funding Percentages	
14	Funding target attainment percentage	14	91.23 %
15	Adjusted funding target attainment percentage	15	91.23 %
16	Prior year's funding percentage for purposes of determining whether carryover/prefunding balances may be used to reduce current year's funding requirement	16	92.04 %
17	If the current value of the assets of the plan is less than 70 percent of the funding target, enter such percentage	17	%

Part IV		Contributions and Liquidity Shortfalls			
18 Contributions made to the plan for the plan year by employer(s) and employees:					
(a) Date (MM-DD-YYYY)	(b) Amount paid by employer(s)	(c) Amount paid by employees	(a) Date (MM-DD-YYYY)	(b) Amount paid by employer(s)	(c) Amount paid by employees
07/13/2022	16,000	0			
10/14/2022	16,000	0			
01/10/2023	16,000	0			
04/11/2023	16,000	0			
Totals ▶			18(b)	64,000	18(c)
					0

19 Discounted employer contributions – see instructions for small plan with a valuation date after the beginning of the year:			
a Contributions allocated toward unpaid minimum required contributions from prior years	19a	0	
b Contributions made to avoid restrictions adjusted to valuation date	19b	0	
c Contributions allocated toward minimum required contribution for current year adjusted to valuation date	19c	61,834	
20 Quarterly contributions and liquidity shortfalls:			
a Did the plan have a "funding shortfall" for the prior year? ☒ Yes ☐ No			
b If line 20a is "Yes," were required quarterly installments for the current year made in a timely manner? ☒ Yes ☐ No			
c If line 20a is "Yes," see instructions and complete the following table as applicable:			
Liquidity shortfall as of end of quarter of this plan year			
(1) 1st	(2) 2nd	(3) 3rd	(4) 4th
0	0	0	0

Part V Assumptions Used to Determine Funding Target and Target Normal Cost

21 Discount rate:				
a Segment rates:	1st segment: 4.75 %	2nd segment: 5.18 %	3rd segment: 5.92 %	☐ N/A, full yield curve used
b Applicable month (enter code)				21b 0
22 Weighted average retirement age				22 63
23 Mortality table(s) (see instructions)	☐ Prescribed - combined ☒ Prescribed - separate ☐ Substitute			

Part VI Miscellaneous Items

24 Has a change been made in the non-prescribed actuarial assumptions for the current plan year? If "Yes," see instructions regarding required attachment.....	☐ Yes ☒ No
25 Has a method change been made for the current plan year? If "Yes," see instructions regarding required attachment.....	☐ Yes ☒ No
26 Demographic and benefit information	
a Is the plan required to provide a Schedule of Active Participants? If "Yes," see instructions regarding required attachment.....	☐ Yes ☒ No
b Is the plan required to provide a projection of expected benefit payments? If "Yes," see instructions regarding required attachment...	☐ Yes ☒ No
27 If the plan is subject to alternative funding rules, enter applicable code and see instructions regarding attachment.....	27

Part VII Reconciliation of Unpaid Minimum Required Contributions For Prior Years

28 Unpaid minimum required contributions for all prior years	28	0
29 Discounted employer contributions allocated toward unpaid minimum required contributions from prior years (line 19a).....	29	0
30 Remaining amount of unpaid minimum required contributions (line 28 minus line 29)	30	0

Part VIII Minimum Required Contribution For Current Year

31 Target normal cost and excess assets (see instructions):			
a Target normal cost (line 6c)	31a	21,468	
b Excess assets, if applicable, but not greater than line 31a	31b	0	
32 Amortization installments:	Outstanding Balance	Installment	
a Net shortfall amortization installment	475,840	49,470	
b Waiver amortization installment	0	0	
33 If a waiver has been approved for this plan year, enter the date of the ruling letter granting the approval (Month _____ Day _____ Year _____) and the waived amount	33		
34 Total funding requirement before reflecting carryover/prefunding balances (lines 31a - 31b + 32a + 32b - 33).....	34	70,938	
	Carryover balance	Prefunding balance	Total balance
35 Balances elected for use to offset funding requirement	0	9,104	9,104
36 Additional cash requirement (line 34 minus line 35)	36	61,834	
37 Contributions allocated toward minimum required contribution for current year adjusted to valuation date (line 19c)	37	61,834	
38 Present value of excess contributions for current year (see instructions)			
a Total (excess, if any, of line 37 over line 36)	38a	0	
b Portion included in line 38a attributable to use of prefunding and funding standard carryover balances	38b	0	
39 Unpaid minimum required contribution for current year (excess, if any, of line 36 over line 37)	39	0	
40 Unpaid minimum required contributions for all years	40	0	

Part IX Pension Funding Relief Under the American Rescue Plan Act of 2021 (See Instructions)

41 If an election was made to use the extended amortization rule for a plan year beginning on or before December 31, 2021, check the box to indicate the first plan year for which the rule applies. ☐ 2019 ☒ 2020 ☐ 2021
--

Schedule SB, line 22 — Description of Weighted Average Retirement Age

(A)	(B)	(C)
Age	Retirement rate	Lx table
55	6.00%	100,000.00
56	5.00%	94,000.00
57	5.00%	89,300.00
58	5.00%	84,835.00
59	5.00%	80,593.25
60	6.00%	76,563.59
61	6.00%	71,969.77
62	15.00%	67,651.59
63	15.00%	57,503.85
64	15.00%	48,878.27
65	40.00%	41,546.53
66	40.00%	24,927.92
67	35.00%	14,956.75
68	35.00%	9,721.89
69	35.00%	6,319.23
70	100.00%	4,107.50
Average		62.73
Retirement Age		

Schedule SB, Part V — Summary of Plan Provisions

Mercer has used and relied on the plan documents, including amendments, and interpretations of plan provisions, supplied by Associated Benefits Corporation as summarized below. Associated Benefits Corporation is solely responsible for the validity, accuracy and comprehensiveness of this information. If any plan provisions supplied are not accurate and complete, the results of any calculation may differ significantly from the results that would be obtained with accurate and complete information. Moreover, plan documents may be susceptible to different interpretations, each of which could be reasonable, and the results of estimates under each of the different interpretations could vary.

The following is a summary of what we understand to be the most relevant plan provisions for purposes of actuarial valuations. This summary should not be used for purposes of determining benefits under the plan.

Summary of major plan provisions—Contributory

Effective date	May 1, 1953; amended to comply with ERISA effective May 1, 1975; restated January 1, 2017.
Participation date	April 1 and October 1
Plan year	April 1 through March 31
Eligibility	<p>Employer chooses:</p> <p>Employees who work at least 1,000 hours per year are eligible on the April 1st or October 1st following attainment of age 21 and completion of four months of employment.</p> <p>Employees are eligible on the April 1st or October 1st following attainment of age 21.</p> <p>Landus Cooperative (Group 78) – New employees hired on or after September 1, 2009 are not eligible to participate. For former West Central Cooperative (Group 138) – New employees hired on or after January 1, 2006 are not eligible to participate.</p> <p>Five Star Cooperative (Group 168) – Eligibility is attainment of age 18.</p> <p>United Farmers Cooperative (Group 175) – Employees of Penwell Grain Co. and Group 472 are not eligible to participate.</p> <p>United Services Association (Group 193) – New employees hired on or after March 31, 2007 are not eligible to participate. Accruals were frozen January 1, 2020.</p>
Employee contribution	<p>Cedar County Cooperative (Group 121) – Contributions are currently suspended.</p> <p>United Farmers Cooperative (Group 175) – Effective January 1, 2017, employees contribute 1% of their monthly earnings.</p> <p>Heartland Co-op (Group 282) – Effective July 1, 2021, employees contribute 2% of their monthly earnings.</p> <p>Central Valley Ag (Group 327) – Prior to July 1, 2009, employees contributed 3% of their monthly earnings. From July 1, 2009 through August 31, 2014, employees contributed 5% of their monthly earnings. From September 1, 2014 through July 31, 2020, employees contributed 4% of their monthly earnings. From August 1, 2020 through June 30, 2021, employees contribute 2% of their monthly earnings. Effective July 1, 2021, employees contribute 3% of their monthly earnings.</p> <p>All other groups - employees contribute 2¾% of their monthly earnings. Several contributory groups currently waive the employee contribution requirement.</p>

Schedule SB, Part V — Summary of Plan Provisions

Contribution account	An account is established for each participant consisting of his employee contributions with interest through April 30, 1975. Employee contributions after May 1, 1975 are added to the Account and the Account is credited with interest. Effective for plan years after March 31, 1988, interest shall be credited at the annual rate of 120% of the Federal mid-term rate for April of the plan year. For 2020, this rate was 1.19%. For 2021, this rate is 1.07%.
Monthly earnings	Monthly Earnings are calculated by dividing the prior calendar year total earnings by the number of weeks worked and multiplying the result times 4 1/3 to obtain a monthly rate. Earnings are limited to \$200,000 per year indexed as provided for by law – limit for 2021 is \$290,000.
Average monthly earnings	Plan benefits are computed using the average of the monthly earnings for the highest five consecutive years prior to termination.
Credited service	Prior to May 1, 1975, Credited Service is the number of years and months from date of hire. Since May 1, 1975, Credited Service is the number of 1,000-hour plan years. If less than 1,000 hours in year of hire or termination, partial credit is given equal to the number of full months worked divided by 12. Employers who adopt the Plan choose whether to grant Credited Service prior to date of adoption.
Normal retirement date	Participants are entitled to retire and receive their full pension benefit on the first of the month coincident with or immediately following their 65th birthday.
Normal retirement benefit	<p>The monthly pension is equal to the percent of Average Monthly Earnings specified in the Employer's Adoption Agreement multiplied by years of Credited Service.</p> <p>The following employers (by group number) have selected a 1.25% benefit accrual formula: 175 and 282.</p> <p>The following employers (by group number) have selected a 1.35% benefit accrual formula: 121.</p> <p>The following employers (by group number) have selected the 1.55% post March 31, 1994 accrual formula: 32, 78, 168, and 328.</p> <p>The following employers (by group number) have selected the 1.65% post March 31, 1994 accrual formula: 81 and 193.</p> <p>Participants have a minimum benefit equal to the accrued benefit frozen as of 3/31/1994 under the prior contributory formula (1.1% of Average Monthly Earnings up to \$400 PLUS 1.65% of Average Monthly Earnings in excess of \$400 multiplied by Credited Service) PLUS the future benefit percent of Average Monthly Earnings specified in the Employer's Adoption Agreement multiplied by years of Credited Service after April 1, 1994.</p> <p>Prairie Ag Cooperative (Group 32) – Accruals frozen as of February 28, 2018.</p> <p>Landus Cooperative (Group 78) – Accruals frozen for most participants as of September 1, 2020.</p> <p>United Services Association (Group 193) – Accruals frozen as of January 1, 2020.</p> <p>Central Valley Ag (Group 327) – the monthly pension is equal to 1.25% of Average Monthly Earnings multiplied by years of Credited Service through June 30, 2009, plus 1.75% of Average Monthly Earnings multiplied by Years of Credited Service from July 1, 2009 through July 31, 2020, plus 1.00% of Average Monthly Earnings multiplied by Years of Credited Service from</p>

Schedule SB, Part V — Summary of Plan Provisions

	<p>August 1, 2020 through June 30, 2021, plus 1.50% of Average Monthly Earnings multiplied by Years of Credited Service after July 1, 2021.</p> <p>For plan years after March 31, 1994, participants are guaranteed a minimum accrual for each plan year. The minimum accrual is equal to one-half of the accrual on the benefit formulas since April 1, 1994 PLUS the benefit deemed to be purchased by employee contributions made since April 1, 1994 under IRC Section 411(c)(2).</p>
Form of monthly retirement income	<p>The standard form of receiving monthly retirement income will be for a participant's lifetime. However, if the participant is married and unless he specifically elects the standard form or another alternate form of benefit and his spouse consents, his benefits will be paid on a joint and 50% survivorship basis with 120 guaranteed payments.</p>
Optional forms	<p>Lifetime with 60, 120 or 180 payments guaranteed.</p> <p>Joint and $\frac{1}{2}$, $\frac{2}{3}$, $\frac{3}{4}$ or full, with 120 payments guaranteed.</p> <p>60, 120 or 180 guaranteed payments only.</p> <p>Lump sum, if actuarial value is less than \$5,000.</p>
Optional form conversion factors	<p>For lifetime annuities: Effective April 1, 2022, 4.5% and the Pri-2012 mortality table, projected to 2035 using MP-2020 improvement scale, blended 75% male and 25% female for participants, 25% male and 75% female for beneficiaries. Previously, 8% and the 1984 Unisex Pension Mortality Table.</p> <p>For lump sum and certain only annuities: the applicable interest rate under Internal Revenue Code 417(e)(3)(C) for the third calendar month preceding the month that contains the distribution and the applicable mortality table published in accordance with Internal Revenue Code Section 417(e)(3)(B).</p>
Early retirement benefit	<p>A participant may retire at (i) age 55 with 10 years of service, (ii) age 62 with five years of service, or (iii) any time after the sum of his attained age and service is 85 or more provided that he has at least 20 years of Credited Service and his last five years of service count as Credited Service. The benefit is calculated in the same manner as the normal retirement benefit, based on Credited Service to early retirement. If the participant qualifies under the rule of 85 described in (iii) above, there is no reduction in the benefit. Otherwise, the benefit is reduced $\frac{1}{300}$ for each month by which the early retirement date precedes age 62.</p>
Termination benefit (vested)	<p>Participants who terminate employment after completing five years of service are 100% vested in their accrued benefit which is payable at age 65.</p>

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Employers with this vesting schedule (by group number): 32, 78, 81, 121, 168, 175, 193, 282, 327 and 328.

Participants who are not vested are entitled to their Employee Contribution Benefit payable at age 65. At the time of termination, a participant may, by written request receive his Contribution Account. His accrued benefit is reduced by the portion of the benefit funded by his Contribution Account. A terminated participant with 5 or more years of Service but less than 10 years of Service may elect immediate commencement of the vested benefit any time after attaining age 62, without reduction. A terminated participant with 10 or more years of Service may elect immediate commencement of the vested benefit any time after attaining age 55, reduced by 1/300th for each month of the commencement date precedes age 62. No reduction applies if the participant meets the Rule of 85 described above.

Death benefit

The spouse or beneficiary of a participant who dies after becoming eligible for early or normal retirement is entitled to receive a death benefit equal to the greater of the Actuarial Value of i) the survivor income payable had the participant retired and elected the joint and 100% survivor option on the first day of the month preceding his death, and ii) the participant's accrued benefit payable for 60 months.

If an active participant dies prior to meeting eligibility requirements for early or normal retirement, the spouse or beneficiary is entitled to receive a death benefit equal to the greater of the Actuarial Value of i) the survivor income payable had the participant terminated employment and immediately begun receiving benefits under 50% Joint & Survivor option, and ii) the member's accrued benefit payable for 60 months.

If survived by a spouse, the death benefit is paid as a life annuity equivalent in value to the greater of the Actuarial Values. The spouse may elect to receive the benefit as a 60 month certain annuity. If not survived by a spouse, the death benefit is paid as a 60 month annuity.

Such death benefit shall be paid first to the beneficiary designated by the participant. If no beneficiary is designated, it is paid first to the surviving spouse; if there is no surviving spouse, then in equal parts to the surviving children of the member; or if there are no surviving children, then in equal parts to the surviving parents of the member; or if there are no surviving parents, then in equal parts to the surviving siblings of the member. The death benefit is payable to the member's estate if the member is not survived by a spouse, child, parent, or sibling and has not designated a beneficiary.

Disability benefit

If a participant is determined to be totally and permanently disabled, he is entitled to an immediate monthly income equal to his accrued benefit reduced 1/300 per month for each month prior to age 62 down to age 55

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	and actuarially thereafter. A minimum monthly benefit of \$50.00 is payable to a participant with at least five years of Credited Service at date of disability.
Late retirement	Benefit at actual retirement is based on Credited Service and Average Monthly Earnings to termination date.
Maximum benefits	Annual benefits may not exceed the limits in IRC Section 415. This limit is indexed annually. For 2021, the limit is \$230,000.
Changes since prior valuation	Changes in the maximum compensation and maximum benefit limits were recognized. Employee contributions were increased to 2% of monthly earnings effective July 1, 2021 (Group 282) The benefit formula was increased from 1.00% to 1.50% and employee contributions were increased from 2% to 3% for service after July 1, 2021 (Group 327).
Benefits not included in the valuation	To the best of our knowledge, no benefits were excluded from the valuation.
Significant events	None.

Summary of Major Plan Provisions – NonContributory

Effective date	May 1, 1980; restated January 1, 2017.
Participation date	April 1 and October 1
Plan year	April 1 through March 31
Eligibility	Employer chooses: Employees who work at least 1,000 hours per year are eligible on the April 1st or October 1st following attainment of age 21 and completion of four months of employment. Employees are eligible on the April 1st or October 1st following attainment of age 21. AGP (Group 4) and AGP Grain Marketing LLC (Group 527) – Eligibility follows attainment of age 18. North Iowa Cooperative (Group 10) – New employees hired on or after January 1, 2021 are not eligible to participate. NEW Cooperative, Inc. (Group 23) – New employees hired on or after September 1, 2009 are not eligible to participate. Participants of MaxYield Cooperative (Group 36) as of August 1, 2021 became participants on the merger date. Farmers Cooperative Company (Group 76) – New employees hired on or after April 1, 2012 are not eligible to participate.

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	Northern Country Coop (Group 135) – Closed to new participants effective August 1, 2021.
	Viafield (Group 173) – New employees hired on or after September 1, 2021 are not eligible to participate.
	StateLine Cooperative (Group 190) – New employees hired on or after June 1, 2016 are not eligible to participate.
	IAHC FC Stone Group, Inc. (Group 201) – New employees hired on or after April 1, 2006 are not eligible to participate.
	New Vision Coop (Group 205) – New employees hired on or after April 1, 2010 are not eligible to participate.
	River Valley Cooperative (Group 225) – New employees hired on or after April 1, 2006 are not eligible to participate.
Monthly earnings	Monthly Earnings are calculated by dividing the prior calendar year total earnings by the number of weeks worked and multiplying the result times 4 1/3 to obtain a monthly rate. Earnings are limited to \$200,000 per year indexed as provided for by law – limit for 2020 is \$285,000.
Average monthly earnings	Note that total earnings include 401(k) and Section 125 elective deferrals. Plan benefits are computed using the average of the monthly earnings for the highest five consecutive years prior to termination.
Credited service	Prior to May 1, 1975, Credited Service is the number of years and months from date of hire. Since May 1, 1975, Credited Service is the number of 1,000-hour plan years. If less than 1,000 hours in year of hire or termination, partial credit is given equal to the number of full months worked divided by 12. Employers who adopt the Plan choose whether to grant Credited Service prior to date of adoption.
Normal retirement date	Participants are entitled to retire and receive their full pension benefit on the first of the month coincident with or immediately following their 65th birthday.
Normal retirement benefit	<p>The monthly pension is equal to 1.1% of Average Monthly Earnings multiplied by years of Credited Service. Participants have a minimum benefit equal to the accrued benefit as of the later of March 31, 1989 and the date the Employer adopted the Noncontributory Plan, PLUS 1.1% of Average Monthly Earnings multiplied by years of Credited Service earned after the later of March 31, 1989 and the date of adoption. Section 401(a)(17) Members have an additional minimum benefit equal to the accrued benefit frozen as of 3/31/94 (determined limiting Earnings to \$235,840) PLUS 1.1% of Average Monthly Earnings multiplied by Credited Service after April 1, 1994.</p> <p>The frozen March 31, 1994 accrued benefit is adjusted to reflect increases in the Member's Average Monthly Earnings after March 31, 1994 as allowed by 42 C.F.R. Section 1.401(a)(4)-13.</p> <p>Ag Processing, Inc. (Group 4) & AGP Grain Marketing LLC (Group 527)– the monthly pension is equal to sum of the following:</p> <p style="padding-left: 40px;">0.8% of Average Monthly Earnings (AME) and 0.4% of AME less \$1,250 all multiplied by years of credited service preceding January 1, 1984</p>

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1.15% of AME and 0.5% of AME less \$833.33 multiplied by years of
Credited Service following January 1, 1984

North Iowa Cooperative (Group 10) – the monthly pension is equal to 1.1% of
Average Monthly Earnings multiplied by years of Credited Service prior to
April 1, 2006 plus 0.90% of Average Monthly Earnings multiplied by years of
Credited Service following April 1, 2006.

NEW Cooperative, Inc. (Group 23) – the monthly pension is equal to 1.4% of
Average Monthly Earnings multiplied by years of Credited Service. For former
participants in Group 36, the 1.10% formula applies for Credited Service prior
to August 1, 2021.

Ag Partners, LLC (Group 150) – Accruals frozen as of December 1, 2008.

Green Plains Grain Company LLC (Group 177) – Accruals frozen as of
January 1, 2009.

IAHC FC Stone Group, Inc. (Group 201) – the monthly pension is equal to
1.25% of Average Monthly Earnings multiplied by years of Credited Service.
Accruals frozen as of September 1, 2009.

Associated Benefits Corp. (Group 210) – the monthly pension is equal to
1.65% of Average Monthly Earnings multiplied by years of Credited Service
prior to April 1, 2022, and 1.10% of Average Monthly Earnings multiplied by
years of Credited Service after April 1, 2022.

River Valley Cooperative (Group 225) – employees whose sum of attained
age and pensionable credited service did not equal or exceed 75 as of April
1, 2006 had their benefits frozen as of that date; the monthly pension is equal
to the sum of the following:

- 1.00% of Average Monthly Earnings (AME) and 0.5% of AVE less \$650
multiplied by years of Credited Service preceding September 1, 1999
- 1.5% of AME multiplied by Credited Service from September 1, 1999 to
April 1, 2003
- 1.1% of AME multiplied by years of credited service from April 1, 2003 to
April 1, 2006
- 0.1% of AME multiplied by years of credited service after April 1, 2006

Farmers Cooperative Co. (Group 258) – accruals frozen as of
October 1, 2020

Golden Growers Cooperative (Group 323) – the monthly pension is equal to
1.836% of Average Monthly Earnings multiplied by years of Credited Service.
Accruals frozen as of January 1, 2013.

Buckingham Co-operative Co. (Group 326) – Accruals frozen as of August 1,
2018.

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	<p>Innovative Ag Services Co. (Group 423) – the monthly pension is equal to 1.50% of Average Monthly Earnings multiplied by years of Credited Service through March 31, 2009 plus 0.8% of Average Monthly Earnings multiplied by years of Credited Service from April 1, 2009 through August 31, 2011 plus 1.10% of Average Monthly Earnings multiplied by years of Credited Service on and after September 1, 2011.</p> <p>Other plans with no active participants: 294, 371, 509, 510, 513, 514, 516, 8027, 8183, 8195, 8337.</p>
Form of monthly retirement income	<p>The standard form of receiving monthly retirement income will be for a participant's lifetime. However, if the participant is married and unless he specifically elects the standard form or another alternate form of benefit and his spouse consents, his benefits will be paid on a joint and 50% survivorship basis with 120 guaranteed payments.</p>
Optional forms	<p>Lifetime with 60, 120 or 180 payments guaranteed.</p> <p>Joint and $\frac{1}{2}$, $\frac{2}{3}$, $\frac{3}{4}$ or full, with 120 payments guaranteed.</p> <p>60, 120 or 180 guaranteed payments only.</p>
Optional form conversion factors	<p>Lump sum, if actuarial value is less than \$5,000.</p> <p>For lifetime annuities: Effective April 1, 2022, 4.5% and the Pri-2012 mortality table, projected to 2035 using MP-2020 improvement scale, blended 75% male and 25% female for participants, 25% male and 75% female for beneficiaries. Previously, 8% and the 1984 Unisex Pension Mortality Table.</p> <p>For lump sum and certain only annuities: the applicable interest rate under Internal Revenue Code 417(e)(3)(C) for the third calendar month preceding the month that contains the distribution and the applicable mortality table published in accordance with Internal Revenue Code Section 417(e)(3)(B).</p>
Early retirement benefit	<p>A participant may retire at (i) age 55 with 10 years of service, (ii) age 62 with five years of service, or (iii) any time after the sum of his attained age and service is 85 or more provided that he has at least 20 years of Credited Service and his last five years of service count as Credited Service. The benefit is calculated in the same manner as the normal retirement benefit, based on Credited Service to early retirement. If the participant qualifies under the rule of 85 described in (iii) above, there is no reduction in the benefit. Otherwise, the benefit is reduced 1/300 for each month by which the early retirement date precedes age 62.</p>
Termination benefit (vested)	<p>Participants who terminate employment after completing five years of service are 100% vested in their accrued benefit which is payable at age 65.</p> <p>Employers with 5-year cliff vesting (by group number): 23, 136, 150, 170, 190, 205, 226, 323, 324, 326, 334, 351, 423 and 471</p>

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Employers with graded vesting (by group number): 4, 10, 36, 135, 156, 173, 177, 201, 210, 216, 223, 225, 229, 258, 294, 302, 345, 415, and 527

<u>Years of Service</u>	<u>Vested %</u>
Less than 2 years	0%
2 years	20%
3 years	40%
4 years	60%
5 years	80%
6 years or more	100%

Death benefit

The spouse or beneficiary of a participant who dies after becoming eligible for early or normal retirement is entitled to receive a death benefit equal to the greater of the Actuarial Value of i) the survivor income payable had the participant retired and elected the joint and 100% survivor option on the first day of the month preceding his death, and ii) the participant's accrued benefit payable for 60 months.

If an active participant dies prior to meeting eligibility requirements for early or normal retirement, the spouse or beneficiary is entitled to receive a death benefit equal to the greater of the Actuarial Value of i) the survivor income payable had the participant terminated employment and immediately begun receiving benefits under 50% Joint & Survivor option, and ii) the member's accrued benefit payable for 60 months.

If survived by a spouse, the death benefit is paid as a life annuity equivalent in value to the greater of the Actuarial Values. The spouse may elect to receive the benefit as a 60 month certain annuity. If not survived by a spouse, the death benefit is paid as a 60 month annuity.

Such death benefit shall be paid first to the beneficiary designated by the participant. If no beneficiary is designated, it is paid first to the surviving spouse; if there is no surviving spouse, then in equal parts to the surviving children of the member; or if there are no surviving children, then in equal parts to the surviving parents of the member; or if there are no surviving parents, then in equal parts to the surviving siblings of the member. The death benefit is payable to the member's estate if the member is not survived by a spouse, child, parent, or sibling and has not designated a beneficiary.

Disability benefit

If a participant is determined to be totally and permanently disabled, he is entitled to an immediate monthly income equal to his accrued benefit reduced 1/300 per month for each month prior to age 62 down to age 55 and actuarially thereafter. A minimum monthly benefit of \$50.00 is payable to a participant with at least five years of Credited Service at date of disability.

Late retirement

Benefit at actual retirement is based on Credited Service and Average Monthly Earnings to termination date.

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Maximum benefits	Annual benefits may not exceed the limits in IRC Section 415. This limit is indexed annually. For 2020, the limit is \$230,000
Changes since prior valuation	<p>Changes in the maximum compensation and maximum benefit limits were recognized.</p> <p>MaxYield Cooperative (Group 36) merged into NEW Cooperative, Inc. (Group 23) effective August 1, 2021, with Group 23 formula applying for Credited Service after this date</p> <p>Northern Country Coop (Group 135) – participation was frozen effective August 1, 2021</p> <p>Viafield (Group 173) – employees hired on or after September 1, 2021 are not eligible to participate</p> <p>Associated Benefits Corporation (Group 210) – benefit formula was reduced effective April 1, 2022</p> <p>New London Farmers Cooperative (Group 8195) – plan was terminated effective December 1, 2021</p>
Benefits not included in the valuation	To the best of our knowledge, no benefits were excluded from the valuation.
Significant events	None

Benefits included or excluded

Unless noted below, all benefits provided by the plans, as restated effective January 1, 2017, are included in this valuation:

- **Most recent plan amendments included:** The plans were restated effective January 1, 2017.
- **Plan amendments excluded:** None.
- **Late retirement increases:**
 - *Active participants:* This valuation does not reflect actuarial increases for participants over age 70½.
 - *Deferred vested participants:* This valuation does not reflect actuarial increases for participants over age 70½.
- **Internal Revenue Code limitations:** The limitations of Internal Revenue Code Section 401(a)(17) have been incorporated into our calculations. The limitation of Internal Revenue Code Section 415(b) was assumed not to apply.
- **IRC Section 416 rules for top-heavy plans:** We did not test whether any plan is top-heavy (when the present value of benefits for key employees equals or exceeds 60% of the present value for all

Schedule SB, Part V — Summary of Plan Provisions

participants). The funding target and target normal cost do not reflect any liability for top-heavy benefit accruals.

Plan Provisions Specific to Funding

Additional benefits included or excluded

IRC Section 436 benefit restrictions:

- *Unpredictable contingent event benefits:* None.
- *Plan amendments:* See above.
- *Prohibited payments:* Limitations on prohibited benefits (if any) are reflected for annuity starting dates before the valuation date but are ignored for annuity starting dates on or after the valuation date.
- *Benefit accruals:* The funding target does not reflect any limitation on benefit accruals. The target normal cost does not reflect any limitation on benefit accruals.

Schedule SB, Part V — Statement of Actuarial Assumptions/Methods

Actuarial assumptions

Discount rate sponsor elections		
• Segment rates or full yield curve	Segment	
• Look-back months	0	
	<u>Stabilized</u>	<u>Non-Stabilized</u>
• First 5 years	4.75%	0.87%
• Next 15 years	5.18%	2.67%
• Over 20 years	5.92%	3.29%
These rates were updated since the prior valuation, as prescribed by the IRS. The stabilized rates reflect ARPA.		
• Expenses	Administrative related expenses (actuarial fees, PBGC premiums, legal fees and trustee fees) assumed to equal the current year flat-rate PBGC premium plus 0.14% of the market value of assets. This is based on analysis of expenses paid in the 2019-2020 and 2020-2021 plan years.	
• Mortality	Funding: Section 430(h)(3) prescribed separate static annuitant and nonannuitant mortality tables. These tables are based on the RP-2006 mortality tables with IRS-developed adjustments and projected with mortality improvement scale MP-2020.	
• Turnover	Based on select rates of turnover for the first four years of service and ultimate rates thereafter. Turnover rates reflect findings from the analysis of plan experience conducted in 2021 and the expectation that future termination patterns and the circumstances of the employers will not differ significantly from the period studied. Sample rates are shown below. Groups 216, 323, 326 and 415 assume no withdrawal For groups 4 and 527, rates for less than 2 years of service reflect 145% of the 2003 Society of Actuaries Basic Age Table (Mercer Modified); rates for 2-3 years of service are based on 100% of that table; and the ultimate rates are based on 90% of that table.	

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Age	Rate of turnover Completed years of service				
	0	1	2	3	4+
25	29.15%	29.15%	18.10%	16.10%	9.63%
30	24.65	24.65	15.00	13.00	6.84
35	22.91	22.91	13.80	11.80	5.85
40	21.46	21.46	12.80	10.80	5.31
45	20.01	20.01	11.80	9.80	4.86
50	18.56	18.56	10.80	9.20	4.41
55	17.26	17.26	10.30	8.70	3.96
60	16.53	16.53	9.80	8.20	3.51

For all other groups, rates for less than 2 years of service reflect 145% of the 2003 Society of Actuaries Basic Age table (Mercer Modified); rates for 2-3 years of service are based on 135% of that table; and the ultimate rates are based on 165% of that table. Sample rates are shown below

Age	Rate of turnover Completed years of service				
	0	1	2	3	4+
25	29.15%	29.15%	18.10%	16.10%	9.63%
30	24.65	24.65	15.00	13.00	6.84
35	22.91	22.91	13.80	11.80	5.85
40	21.46	21.46	12.80	10.80	5.31
45	20.01	20.01	11.80	9.80	4.86
50	18.56	18.56	10.80	9.20	4.41
55	17.26	17.26	10.30	8.70	3.96
60	16.53	16.53	13.23	11.07	6.44

• Disability None Assumed

• Expected Return on Plan Assets Varies based on which asset pool the plan sponsor was invested in on each valuation date. For calculating the actuarial value of assets, rates are limited by the 3rd segment rate for each year; rates for this purpose for 2021 are to be determined.

	2021	2020
• Pool A	6.08%	5.94%
• Pool B	5.76%	5.94%
• Pool C	5.43%	5.87%
• Pool D	4.54%	4.53%
• Pool E	3.77%	3.79%

The expected rate of return on plan assets for each pool begins with the median simulated investment return using capital market assumptions published in Mercer Investment Consulting's Capital Markets Outlook for the pool's target asset mix, net of an adjustment of 7 bps for expenses assumed to be paid from plan assets. This

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return is further adjusted for the weighted difference in capital market outlooks that Principal, the plans' investment consultant, publishes for each asset class.

For plans which applied ARPA funding relief as of April 1, 2020, the Pool A expected return for 2020 was 6.27%.

- **Salary increases**

For groups 4 and 527: Salaries will increase according to an age-related table ranging from 8.25% down to 2.75% per annum. Illustrative future salary increase information is as follows:

Age	Salary increase
20	8.25%
25	7.50%
30	6.25%
35	5.50%
40	5.00%
45	4.25%
50	4.00%
55	3.75%
60	2.75%
65	2.75%

For all other groups: Salaries will increase according to an age-related table ranging from 6.24% down to 2.70% per annum. Illustrative future salary increase information is as follows:

Age	Salary increase
20	6.24%
25	5.89%
30	5.54%
35	5.19%
40	4.84%
45	4.49%
50	4.14%
55	3.70%
60	3.20%
65	2.70%

The salary increase assumption reflects findings from an experience study conducted in 2021 and the expectation that future wage increases and the circumstances of the employers will not differ significantly from the period studied.

The Restated Noncontributory Retirement Plan for Cooperatives

Group 177

EIN/PN: 26-2042403/20

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• Incidence of retirement

For employees who become eligible to retire prior to age 55, the assumed rate of retirement is 10% at all ages.

For frozen groups 78, 177, 201 and 258, same assumptions as below until eligible for unreduced retirement, but then 100% at unreduced retirement age.

For groups 216 and 326, all retirements are assumed at age 62.

For groups 4 and 527:

Age	Rate of Retirement
55	6%
56	6
57	6
58	6
59	6
60	10
61	10
62	30
63	20
64	20
65	55
66	55
67	35
68	35
69	35
70 & Over	100

For all other groups:

Age	Rate of Retirement
55	6%
56	5
57	5
58	5
59	5
60	6
61	6
62	15
63	15
64	15
65	40
66	40
67	35
68	35
69	35
70 & Over	100

Retirement rates reflect findings from the experience study conducted in 2021 and the expectation that future retirement patterns and the circumstances of the employers will not differ significantly from the period studied.

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• Spouse's benefit	80% of all employees are assumed married with husbands two years older than their wives. This assumption is based on an examination of historical data as of March 31, 2012	
• Form of payment	20% of participants are expected to commence benefits as a Life Only annuity, 35% as a 100% J&S annuity, and 45% as a 5-Year Certain annuity. This assumption is based on an experience study conducted in 2021.	
• Commencement for vested terminations	Age 62 for participants with 5 or more years of service; Age 65 otherwise. This assumption is based on the date that unreduced benefits are available and confirmed by an experience study conducted in 2021.	
• Conversion basis	For the Contributory Plan and Modified Contributory Plan, contribution accounts are converted to equivalent monthly benefits using stabilized interest rates and the current year 417(e) mortality table, as required under IRS regulations.	
• Interest earned by employee contributions	Year	Interest rate
	2022	2.50%
	2023	2.75%
	2024	3.00%
	2025	3.25%
	2026	3.50%
	2027 and Later	3.75%
	Historically, the required interest rate for employee contributions has been substantially similar to yields on five-year corporate bonds of high quality. These rates are based on five-year bond yields implied from the IRS Funding Yield Curve for February 2020.	
• Inflation	The inflation assumption used to project the maximum salary limitation for future years is 2.2%. This assumption is based on the inflation assumption periodically published by Mercer Investment Consulting in their Capital Markets Outlook with adjustments to reflect historical average inflation rates.	

Actuarial methods

An actuarial valuation is only a snapshot of a plan's estimated financial condition at a particular point in time; it does not predict the plan's future financial condition or its ability to pay benefits in the future and does not provide any guarantee of future financial soundness of the plan. Over time, a plan's total cost will depend on a number of factors, including the amount of benefits the plan pays, the number of people paid benefits, the period of time over which benefits are paid, plan expenses and the amount earned on any assets invested to pay benefits. These amounts and other variables are uncertain and unknowable at the valuation date.

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Because modeling all aspects of a situation is not possible or practical, we may use summary information, estimates, or simplifications of estimates to facilitate the modeling of future events in an efficient and cost-effective manner. We may also exclude factors or data that, if used, in our judgment, would not have significantly affected our results. Use of such simplifying techniques does not, in our judgment, affect the reasonableness of valuation results for the plan.

Valuations do not affect the ultimate cost of the plan, only the timing of when benefit costs are recognized. Cost recognition occurs over time. If the costs recognized over a period of years are lower or higher than necessary, for whatever reason, normal and expected practice is to adjust future cost levels to recognize the entire cost of the plan over time.

Asset valuation methods

The asset valuation method is an average of the adjusted market value for each year during the last 2 years preceding the valuation date. The adjusted market value is the market value at each determination date adjusted to the valuation date based on actual cash flows and expected interest at the lesser of the expected rate of return and the third segment rate. This amount is adjusted to be no greater than 110 percent and no less than 90 percent of the fair market value, as defined in IRC Section 430. (Contributions made after April 1, 2022 are generally not reflected in the preliminary results.)

For purposes of the asset valuation method only, contributions during the plan year are assumed to be made in the middle of the month in which they are contributed and receivable contributions are assumed to be made on the last day of the month in which they are contributed, except for contributions during December, which are assumed to be in the middle of the month.

A characteristic of this asset method is that over time, it is slightly more likely to produce an actuarial value of assets that is less than the market value of assets than an actuarial value that is greater than the market value.

Participant methods

Participants or former participants are included or excluded from the valuation as described below:

- **Participants included:** Associated Benefits Corporation provides us with data on only those employees who have completed the eligibility requirements so only participants are included in the valuation of the liabilities.
- **Participants excluded:** No actuarial liability is included for nonvested participants who terminated prior to the valuation date.

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- **Insurance contracts:** The plan does not have any insurance contracts.
- **Transferred participants:** The liabilities for benefits earned prior to their transfer by employees who have transferred to another Associated Benefits Corporation employer have been included with the liabilities for terminated vested participants at their former employer.

Actuarial Cost Method

Method for Minimum Funding

The funding target for minimum funding calculations is computed using the traditional unit credit method of funding. The objective under this method is to fund each participant's benefits under the plan as they accrue. Thus, the total pension to which each participant is expected to become entitled at retirement is broken down into units, each associated with a year of past or future credited service.

A detailed description of the calculation follows:

- The plan's valuation date is the beginning of the plan year.
- An individual's **funding target** is the present value of future benefits based on credited service and average pay as of the beginning of the plan year, and an individual's **target normal cost** is the present value of the benefit expected to accrue in the plan year. If multiple decrements are used, the funding target and the target normal cost for an individual is the sum of the component funding targets and target normal costs associated with the various anticipated separation dates.
- The plan's **target normal cost** is the sum of the individual target normal costs, and the plan's **funding target** is the sum of the individual funding targets for all participants under the plan.

Schedule SB, line 24 — Change in Actuarial Assumptions

The following assumptions were updated since prior valuation:

- Interest rates and mortality for funding calculations were updated in accordance with PPA.
- The retirement rates for group 78 were updated to reflect the plan freeze.
- Expected rates of return were changed based on updated capital market outlook information prepared by each of Mercer and Principal.

Schedule SB, Line 32 – Schedule of Amortization Bases

The shortfall amortization charge is the sum of the shortfall base amortization for each plan year covered under PPA. Although a shortfall base can be negative, the combined shortfall amortization charge cannot be negative.

Shortfall bases

Date established	Outstanding balance	Years remaining	Installment
4/1/2022	\$ 55,279	15	\$ 5,108
4/1/2021	(290,848)	14	(28,161)
4/1/2020	711,409	13	72,523
Total	\$ 475,840		\$ 49,470

Plan Name: The Restated Noncontributory Retirement Plan for Cooperatives
Plan Sponsor EIN: 26-2042403
ERISA 3-digit Plan #: 020
Plan Year Ending: 03/31/2023

The required attachment marked with an "X" in the Attachment column is included within the Schedule SB – Single-Employer Defined Benefit Plan Actuarial Information pdf attachment to Form 5500 or Form 5500-SF, Part VI, line 11 which consists of the entire actuarial information issued by the plan's Actuary.

Form/Schedule	Line #	Description	Attachment
5500 Sch. SB		Actuarial Assumptions and Methods	X
5500 Sch. SB		Summary of Plan Provisions	X
5500 Sch. SB		Statement of Enrolled Actuary	X
5500 Sch. SB	7	Explanation of Discrepancy in Prior Year Funding Standard Carryover Balance or Prefunding Balance	
5500 Sch. SB	19	Discounted Employer Contributions	
5500 Sch. SB	22	Description of Weighted Average Retirement Age	X
5500 Sch. SB	24	Change in Actuarial Assumptions	X
5500 Sch. SB	25	Change in Method	
5500 Sch. SB	26	Schedule of Active Participant Data	
5500 Sch. SB	32	Schedule of Amortization Bases	X