

Introduction

This report presents the findings of a comprehensive research project aimed at evaluating the relative alignment of Organic System Plans (OSPs) with the National Organic Program (NOP) standards

Data Collection and Analysis

Step 1: Selection of Certifiers

Non-probability sampling strategy aimed to produce a sample that resembled the total set as much as possible.

Step 2: Collection of OSPs

The OSPs were collected directly from the certifiers, ensuring that the most current and accurate versions were used for analysis

Step 3: Preparation of Data

After the OSPs were collected, they were prepared for analysis. This involved organizing the data in a Google sheet which facilitated analysis

Step 4: Data Analysis

- Each question or requirement for each certifiers' OSP was compared with the corresponding NOP standard to determine which, if any, standard it verified.
- Line items were analyzed to determine if each OSP explicitly or directly addressed the regulation.

Step 5: Interpretation of Results

This involved examining the descriptive statistics to identify patterns and trends in the data.

Findings

12.3%

of questions on an OSP
did not align with a NOP
standard.

92%

of questions conformed to
the best practices for
question structure.

Findings

Word count ranged from a **low of 3,742** to a **high of 16,655**. Line Item count ranged from a **low of 155** to a **high of 520**. Question count ranged from a **low of 94** to a **high of 370**.

A	308	252	9,098	1658	P	Y
C	155	94	3,742	43	G	N
D	374	260	6,933	2470	P	Y
E	372	247	9,997	1090	P	Y
G	304	217	8,052	990	P	Y
H	520	370	16,655	2699	P	Y
I	274	185	6,509	770	G	Y
M	257	171	5,735	160	G	N
N	356	250	7,047	1036	P	Y
O	250	170	4,938	239	G	N
R	503	319	8,968	893	P	Y
T	297	240	9,830	1219	P	Y
Y	425	344	10,302	102	G	N
Total	4,395	3,119	107,806	13,369		
Mean	341	239	8,226	976		
Median	308	247	8,052	990		
SD	107	79	3,368	862		

When looking at a sampling of whether an OSP explicitly answered 79 regulatory line items, OSP H had the both the highest number of direct and the highest word count. However, OSP R had the lowest number of direct prompts (35) and had a word count in the middle of the pack when it came to level of detail as shown in Table 1.

Outcome

VALIDATED ORGANIC SYSTEM PLAN (OSP) GAP ANALYSIS & NARRATIVE ASSESSMENT

DATE: July 10, 2023

PREPARED FOR: Accredited Certifiers Association

PREPARED BY: Quick Organics Research Team with Wolf & Associates

OBJECTIVE: Provide an assessment of comparative compliance of a sample of OSPs relative to the expectations put forward in selected subsections of 7 CFR Part 205 – National Organic Program (NOP).

INTRODUCTION

This report presents the findings of a comprehensive research project aimed at evaluating the relative alignment of Organic System Plans (OSPs) with the National Organic Program (NOP) standards authorized by Congress under the Organic Foods Production Act of 1990 (OFPA) and implemented under authority of the Agricultural Marketing Service (AMS) within the United States Department of Agriculture (USDA).

The study is designed to address four research questions:

1. How well does a certifier's OSP align to the NOP standards?
2. Do certifier questions in the OSP conform to best practices?
3. What is the current level of OSP alignment amongst certifiers?
4. What are the most prominent areas of misalignment across certifiers' OSPs?

The team used a multiple case study strategy, with each case being a certifier's OSP measured against the NOP standards. A sample of 13 OSPs was selected from a pool of 72, and factors such as Scope, Entity Type, and Geographic Location were considered among many others in selecting samples among the pool of potential OSPs. The focal area of this study is on crop production system plans.

The findings of this research have significant implications for organic certification policy and implementation. A sector-wide understanding the degree of alignment among OSPs with NOP standards and with each other can inform the application of all elements of organic certification, from OSP template development, OSP completion instructions, OSP review, inspection, and technical review to certification decision making.

Critically, disparity or inconsistency among OSP templates may lead to disparity or inconsistency in the application of the regulations themselves, and such variability may work against the intent to provide a "level playing field." Assessing degrees of alignment is an essential step in securing optimal access to services, ensuring consistent application of the standards, and promotes equity across certifiers, regions, crops, production cycles, and farmers themselves.

The overall goal of this study is to provide accurate data and reasoned information to facilitate the continued growth of the organic sector and improving consistency, integrity and effectiveness of the USDA's National Organic Program as implemented through the established public-private partnership.

BACKGROUND

REGULATION & SECTOR

The final regulations implementing the NOP were published December 21, 2000 (65 FR 80548) and became effective on October 21, 2002. Through these regulations, the AMS oversees national standards for the production, handling, and labeling of organically produced agricultural products. Since becoming effective, the USDA organic regulations have been frequently amended, mostly for changes to the National List in 7 CFR 205.601-205.606.

The organic food industry has undergone significant growth since 1990 with U.S. revenues exceeding \$60B in 2022. With global organic food, feed and fiber markets expected to exceed \$500 billion by 2030, a continued focus on consistent and effective compliance assessment is critical. The NOP is charged with implementing and overseeing the regulations found in 7 CFR Part 205 – the National Organic Program. For clarity of reference, all regulatory references that follow refer to 7 CFR Part 205 unless otherwise specified.

OSP ORIGINS

A key component of this program is the Organic System Plan (OSP), which each organic operation must develop and submit to an Accredited Certifying Agent (ACA) for review and approval, consistent with §205.201. An operator is then expected to operate in a manner consistent with that OSP unless and until the plan is changed and the updated plan is reviewed and approved by an ACA.

A note about nomenclature: This report will refer to an 'OSP' or 'OSP template'. Generally, use of 'OSP' will mean the plan as completed by the operator, often with ACA approval. 'OSP template' will mean the form used by ACAs to guide the operator in providing sufficient information for the ACA to assess the ability to comply with OFPA and Part 205. At some points, however, 'OSP' will refer to the information articulated in §205.201, either directly or by extension. The authors have attempted to clarify the meaning in context when use of the terms could be confusing and when the distinction between meanings is important.

The OSP as in use today is predated by functionally analogous documents which certification agents (or "certifiers") used to optimize their operational efficiency, typically called an application, a term some use interchangeably but erroneously in the current regulatory context. Those applications generally aligned with the self-declared standards that the certifier used to assess conformance. In December of 2000, there were 44 private, different organic standards in play in the U.S., and on October 21, 2002, there was one, and the applications of the past had morphed into OSPs of the future.

It is worth noting that in the past, pre-NOP, certifiers often chose to withhold recognition of the validity of another certifier's standards or practices of conformance assessment. In many instances, Certifier A, who certified a processor, would decline to recognize Certifier B, who certified an ingredient for the processor. This led to a factionalized, fragmented certification supply chain demonstrably incapable of self-governance.

This dynamic helps explain some of the variations found among OSPs today: their roots are most often in the prior applications of certifiers who held that the integrity of their standards at that point in time were superior to others. When the transition to OSPs occurred, they used the closest thing at hand—their applications—and the OSPs carried over some of the personality, nuance, and an appreciation for their own history, even as their past organic standards—many of which were hard fought badges of honor and distinction for the certifiers’ founders—were declared functionally irrelevant.

After twenty years of full implementation of the NOP, OSP alignment has improved dramatically since the first iterations of OSPs due mainly to accreditation enforcement, and each of the 13 samples are products of not only certifier (and then ACA) history but now are also products of NOP oversight which has narrowed any significant gaps that were once present prior to the advent of the NOP.

WHAT CONSTITUTES AN OSP

Strictly speaking, the components of an OSP are provided only in §205.201, aptly titled “Organic production and handling system plan.” §205.103, regarding records and recordkeeping, is incorporated by explicit reference in §205.201(a)(4).

From §205.201:

“Organic system plan. A plan of management of an organic production or handling operation that has been agreed to by the producer or handler and the certifying agent and that includes written plans concerning all aspects of agricultural production or handling described in the Act and the regulations in subpart C of this part. ~~(b)~~”

§205.105 notes specific prohibitions in organic production or handling; this is a requirement. §205.202 speaks to land use history, not mandated in §205.201. §§205.203-290 articulate requirements, practice standards, or variances, not required elements identified in §205.201. The entirety of Subpart D regarding labeling and representation, seal use, and product composition are requirements. Subpart G is administrative, home of the National List of Allowed and Prohibited Substances and is to be used *in relation* to substances to be included in §205.201(a)(2).

Despite none of the sections listed in the paragraph above being included in the requirements for an OSP, *strictly speaking*, all are allowed to be included by virtue of §205.201(a)(6), specifying that the OSP must include

Additional information deemed necessary by the certifying agent to evaluate compliance with the regulations.

§205.201(a)(6) is the single gateway through which requests for information (in the form of an OSP template) funnel through to be considered what is colloquially called the “OSP in the blank form” provided to operators for completion or in the completed form after an operator has provided the requested information. Note also that ACAs most often do ask for various addenda and attachments in support of inputs, processes, contract services, and a myriad of other supporting documents commonly found in a certified operator’s file. Most often these too are considered by the ACA to be part of ‘the OSP.’

While this clarity may seem to be a subtle nuance, it holds significant importance in the alignment of OSP templates in the sample set. In general terms, the farther one gets from the strict definition of the

OSP found in §205.201(a)(1-5), the greater the variance in alignment between OSP templates among ACAs. This is a key finding.

USE OF THE OSP

The primary use of the OSP is to serve the functions described above with respect to 7 CFR Part 205, and after 20 years of active duty, iteration, and oversight, they perform that job reasonably well and reasonably consistently. In recent years, discussions have emerged among industry and regulatory bodies wherein the OSP may figure as a tool with broader applicability, such as for crop insurance purposes under the Risk Management Agency or for grant funding opportunities under the National Resource Conservation Service. These discussions have included the possibility that the OSP, under certain circumstances, may be able to be used as a qualifying document for services or funding that would be advantageous for certified operators in a number of ways.

Informal public conversations in recent years have yielded indications that variability among OSPs and their oversight is serving as one impediment for facilitating access to these advantageous services and/or funding sources from other agencies within the USDA. Articulating the current variability among OSPs is an essential finding of this research to facilitate development of options and actions that may be able to satisfy the needs of adjacent agencies for consistency, thus opening opportunities for certified operators and those operators considering transitioning to organic production.

Regarding operators transitioning to organic production, a complete OSP is both a required element to enter the organic marketplace and a barrier to entry for those not already producing and selling organic goods. In other words, while being certified means an operator has overcome that barrier to entry and can benefit from all the advantages organic production can bring, it also serves to slow entry of additional participants who could bring additional supply to market and, eventually, bring more organic goods in reach of more consumers.

Given that the USDA has committed large sums of funding in the support of transitioning agricultural production operations to organic practices and that additional funding in support of organic market development has been recently announced, the urgency in determining means of facilitating that transition has never been more apparent. In addition to the intentions noted above, this research project was undertaken to also assist with that effort in identifying degrees of compliance, peer OSP performance, degrees of alignment, areas of misalignment between differing formats in OSP templates.

METHODS & DESIGN

The details of methodology and design of this research project are available under separate cover so only a brief summary is provided here. The team was guided by the philosophy of positivism, aligning with the objective of this study to assess the degree of compliance and alignment of certifiers' OSPs against the benchmark of the National Organic Program (NOP) standards and peer OSPs, respectively.

Research Design - The research design was a multiple case study, with each case being a certifier's OSP. This design allowed for an in-depth examination of each OSP and its alignment with the NOP standards.

Data Collection - The data collection process involved a non-probability sampling strategy. From a qualifying list of 72 certifiers, 13 were selected based on considerations of Crops Scope, Entity Type, and Geographic Location and resembled the total set as much as possible. Each certifier's OSP was then collected and prepared for analysis.

Data Analysis - The data analysis method employed to examine the alignment of each OSP with the NOP standards was Descriptive Statistics. This method was chosen because it allows for a straightforward

interpretation of the data and aligns with the research aims and philosophy. A quantitative methodology was utilized for the question item analysis piece in which the structure of each individual question within an OSP was evaluated against established question-structure best practices in an effort to gauge how accessible individual OSP questions may be to the average user. Google Sheets software was used to derive the results for both analyses, as it provided a user-friendly platform for data organization and analysis.

Research Strategy - The research strategy was in the form of a multiple case study. The depth of this strategy was an embedded case study where the aspect being examined was the certifier's OSP measured against the benchmark.

In summary, the methodology employed in this research was designed to provide a robust and comprehensive analysis of the alignment of OSPs with NOP standards.

Data Collection and Analysis - The data collection and analysis process for this research project was designed to provide a comprehensive understanding of the alignment of Organic System Plans (OSPs) with the National Organic Program (NOP) standards in the following sequence:

1. Certifier Selection
2. Collection of OSPs
3. Preparation of Data
4. Data Analysis
5. Use of Google Sheets
6. Interpretation of Results

Once the data analysis was complete, the results were interpreted and included examining the descriptive statistics to identify patterns and trends in the data, such as which NOP standards were most commonly misaligned and which certifiers had the highest levels of alignment.

After the quantitative analysis was complete, a qualitative team was employed to interpret the data and the quantitative analysis to provide contextualization, historical perspective, and summarizing conclusions relevant to the research questions and any derivatives of the discussion.

FINDINGS

Summary

While the data analysis revealed that, on average, 12.3% of questions on the OSPs did not align directly with an NOP standard, a robust majority of questions, approximately 92%, conformed to the best practices for question structure and aligned with an NOP standard either directly or indirectly. The standard deviation of OSP alignment among certifiers was 5.3, indicating a moderate level of variability in alignment across different certifiers.

In the context of utilizing the OSP as part of a sequence of steps toward confirming compliance with the NOP standards, any substantive variance (~8-12% depending on the metric applied) in OSP content or variability was compensated through indirect requests for supporting information in the form of any single use or combination of attachments, schedules, lists, affidavits, Certificates of Analysis, compliance verification, verification of practice standard applications, special instructions, documentation of SOP adherence, audit trail and traceability exercises. The net result is that while OSPs are not 100% percent complete or consistent, their functionality in providing a starting point for compliance assessment is

undeniably high and are applied effectively in the context of the totality of accredited certification activities.

None of the sampled OSPs failed to provide a means to determine compliance with the core requirements for an OSP found in §205.201(a)(1-5). Having said that, the means, and formats by which and through which the OSPs provide opportunities to express the plans of the operators to abide by other requirements, practice standards, or other considerations are **highly** variable.

Variability in use of words, questions, and line items tells the tale of variability rather effectively, though this is not the only type of variability encountered. Word count ranged from a low of 3,742 to a high of 16,655. Line Item count ranged from a low of 155 to a high of 520. Question count ranged from a low of 94 to a high of 370. The low and high counts for each count category reside in the same two OSPs, not surprisingly; those in the middle express the same ratio pattern expressed in that of the low and the high count OSPs. In general, the relative word count, line item count and line count are reasonable values to justify using them to speak to the relative detail level the OSPs discussed in the report.

A case in point describing this variability is simply summarized by Table 1, below.

CODE	OSP Line Items	OSP Questions	OSP Words	Crop Operations	Gov't or Private	Pre-NOP
A	308	252	9,098	1658	P	Y
C	155	94	3,742	43	G	N
D	374	260	6,933	2470	P	Y
E	372	247	9,997	1090	P	Y
G	304	217	8,052	990	P	Y
H	520	370	16,655	2699	P	Y
I	274	185	6,509	770	G	Y
M	257	171	5,735	160	G	N
N	356	250	7,047	1036	P	Y
O	250	170	4,938	239	G	N
R	503	319	8,968	893	P	Y
T	297	240	9,830	1219	P	Y
Y	425	344	10,302	102	G	N
Total	4,395	3,119	107,806	13,369		
Mean	341	239	8,226	976		
Median	308	247	8,052	990		
SD	107	79	3,368	862		

Table 1. Note: A code letter has been assigned for each of the OSPs analyzed in the project. These codes are intended to at least partially obscure the identity of each ACA who provided the sampled OSPs. In addition to those items above, sixteen other criteria were reviewed in the qualitative assessment, but lack of substantive impact of thirteen of those led the authors to remove them from this summary. Three of the sixteen suggest having substantive impact on some portion of the findings, but those criteria are so specific as to be tantamount to identifying the ACA directly and are so omitted here.

The authors searched diligently for a method of quantifying variability in format, font, and other aesthetic features as well as syntax variability or grammar and punctuation use, which was available but deemed not within the project scope.

One qualitative variable considered was the presence of explicit NOP reference citations in the body of the OSP, which appear in 9 of 13 OSPs. While useful for the operator, the authors ultimately deemed this to be of little impact to assessing compliance of the operation and as more of a customer service consideration. Other features considered were font size and type (influences regarding legibility and customer service), classification of the ACA as either a governmental or private entity, number of certified operators which are crop producers, and whether the ACA had experience in organic certification prior to the establishment of the NOP, among other features. No discernable patterns for impacts on compliance assessment capability as evidenced in the OSP were noted in these criteria reviews, though some interesting patterns emerged that fell beyond the scope of this project and therefore not reported here.

The most impactful variability is found not in the length or verbal efficiency of the OSP but at what level of detail of relevant sections of the standards do OSPs either provide or fail to provide explicit opportunities for presentation of intended substances or practices directly linked to the regulation. This is discussed in detail under Research Question 4.

Details

Research Question 1: How well does a certifier's OSP align to the NOP standards?

The quantitative analysis revealed that the level of alignment of certifiers' OSPs with NOP standards varied. On average, 12.3% of questions on an OSP did not align with a specific NOP standard or citation. The presence and content found in §205.201(a)(6), however, allows for any information the ACA considers necessary to assess compliance with the Act and regulation, so by virtue of inclusion and continuing accreditation by the USDA/NOP, any question or line item in an OSP template may be considered to be part of the OSP when completed by the operator. Though this at first struck the authors as an overly, even egregiously generous, interpretation, technically speaking, any item the ACA include in the template will default to being deemed essential to verify compliance, though with differing degrees of specificity.

§205.201 explicitly defines what constitutes the Organic System Plan, and this includes subsection (a)(6). Accordingly, every question in an OSP template may be legitimately considered to align with the NOP standards as a whole, though questions or elements may do so only indirectly, and a purely quantitative review will miss this alignment.

Generally accepted OSP content exceptions are those elements typically necessary to conduct administrative functions such as an email address, phone number, business structure, or the location of the corporate headquarters, items that could be included on a separate application. These and myriad other features like them are not needed for compliance assessment but are needed to conduct business. Variability runs high among the sampled OSPs in this regard if one considers the definition of OSP broadly or colloquially, with some OSP templates also asking for relatively numerous administrative details and others asking for fewer. Since these elements do not play into compliance assessment but rather administrative functionality, they are not summarized or discussed in further detail in this report.

Research Question 2: Do certifier questions in the OSP conform to best practices?

The study found that on average, 92% of questions on an OSP conformed to the best practices for question structure. This high percentage suggests that most certifiers are following best practices when formulating their OSP questions.

Approaching this question qualitatively, the authors question the existence of a uniformly accepted set of best practices relative to OSP alignment, making this question at least somewhat ambiguous. Therefore, in this case, best practices were defined functionally by the presence and uniformity of the most common features found among the majority of the samples. In this assessment, the OSPs include prompts or questions for the essential components defined in §205.201 and provide prompts, questions, or other opportunities for inclusion of confirmation of adherence to practice standards, input compliance, and other requirements. Accordingly, and in the absence of a specified, generally accepted guide to OSP template best practices, each OSP in the sample generally conforms to the available definition of best practices, with the qualifier that methods and formats used to achieve that are quite variable.

Research Question 3: What is the current level of OSP alignment amongst certifiers?

The standard deviation of OSP alignment among certifiers was calculated to be 5.3. This value indicates a moderate level of variability in alignment across different certifiers when using a purely quantitative approach to the question. Some certifiers have OSPs that align closely with NOP standards, while others have significant areas of misalignment when misalignment is defined as a lack of specific and explicit reference to the standards.

Variability in alignment should not be taken to mean that any given OSP deviates from providing an opportunity to include the necessary information, though there is substantial variability in the clarity of the prompts found in the OSP templates, in their sequence, number, and level of detail included. Further, the prompts for any given line item found in the regulation may not appear in an OSP, narrowly defined, but may appear as a general request for a completely separate attachment or in some cases a request to attach a document generated by a party other than the operator entirely.

In answer to the research question, alignment is very high if one accepts that the means, format, prompt, or opportunity to provide the required information is highly variable and derivative of the OSP, including attachments and addenda. In the main, all OSP templates are functional in setting the stage for provision of required information. Some versions of the OSP templates present opportunities for operators to provide more *structured* additions or for the inclusion of more explicit instructions or examples to guide operators toward more consistent information provision.

Research Question 4: What are the most prominent areas of misalignment across certifiers' OSPs?

The most *quantitatively* prominent area of misalignment across certifiers' OSPs was found to be with regard to §205.301, which speaks to determination of product composition. This is typically applied to processed products, not raw agricultural commodities and therefore not in the focal area for this report.

Though not the main area of interest for this report focused on crop production OSP templates, worth noting are two points about this area of variability. First, this variability is not found in the OSP proper, §205.201, nor in practice standards, land use history, recordkeeping, variances, or use of inputs, and that speaks well to the relative uniformity of the OSP features which are the focus of this report.

Second, one of the enhancements found in the recently finalized regulations under the Strengthening Organic Enforcement (SOE) initiative was on the subject of determining product composition, with specified intent to bring into alignment the ways ACAs are making these determinations. Accordingly, the authors will refrain from drawing conclusions about the relevance of this point of variability since it is reasonable to project that OSPs will soon be adjusted to align closely with the revisions to §205.301.

Qualitatively speaking, the highest degree of variability among OSPs is found in the degree to which any given OSP *directly* collects or prompts information from the operator. In a sampling of 79 regulatory line items, explicit and direct prompts for information went from a low of 35 in the case of OSP R to a high of 62 in the case of OSP H. Note that OSP H also had the highest level of detail as shown in Table 1, but OSP R was in the middle of the pack when it came to level of detail as shown in Table 1.

Among the practice standards, highest rates of variability (at or above 30%) are found in the direct collection of information regarding:

- §205.203(d)(2-5), (c)(2)(i), (d) and (e)(1) and (3)
- §205.204(a)(3-4)
- §205.205(a), (c) and (d)
- §206(e) and (f)

This variability in direct collection does not appear to hamper to a substantive degree the ability of an ACA to assess compliance with the applicable standards because alternate means of information acquisition are available, as deemed necessary by the ACA.

As a reminder, this data was pulled only from the documents provided by the volunteer ACAs, so some information may be incomplete. As another reminder, though an OSP may have failed to directly collect or prompt information from an operator on a specific line item of the regulation, all OSP templates compensated for this in other ways, some documentational and others procedural, often in ways that were not reflected in the text of the OSPs templates themselves.

DISCUSSION & CONCLUSIONS

Demonstrated by the data analyzed and the qualitative assessment conducted, it is clear the basic requirements for an OSP template are captured in some way by each of the OSP templates (or by ancillary documents or processes) provided for the project. The OSP templates provided for the study each do the required work to at least an acceptable degree.

Degree of alignment among the OSP templates may not be a relevant guide to assess the degree to which there is uniformity in an OSP when completed by an operator. An oft-forgotten characteristic of an OSP is that a *Plan* is of an *operator's* making, not of an ACA. Authorship and ownership of the OSP is held by the operator, but the ACA must approve and accept it. What the authors of this report have been referring to as the OSP **template** is of the ACA's making and provided to the operator as a means of

prompting the operator to provide what the ACA deems necessary to assess the ability to comply with the Act and applicable portions of the regulation.

Variability or lack of direct expression of a prompt to each line of the regulation, to the extent those exist when contrasting OSP templates in the sample, may at first seem to be a weakness with respect to assessing compliance. With the deep analysis and contextualization applied in this project, there is little evidence to justify such a concern. At the same time, there is also no evidence that any such variability is a benefit or strength, either. Empirically, OSP templates are allowed to—and do—take many forms.

Given that all the ACAs who presented OSPs for this analysis are presently accredited, the authors draw the conclusion that there are no flaws in any of the OSPs that are so significant as to render them ineffective; this may be in part because, despite widely varying styles, content, instructions, and depth of coverage, each ACA has demonstrated an ability to collect and/or review what the NOP considers to be required information through alternate means. Descriptions of such alternate procedures about these alternate means were not made available for inclusion in the analysis nor in the qualitative assessment.

Typically, an OSP is created only when an operator uses a template as a structure to provide adequate information that allows for the assessment by an ACA of the ability to comply with the Act and applicable portions of the regulation. Neither OFPA nor the regulation requires an ACA to develop an OSP template. *OSP templates are provided for convenience*, tools for greater efficiency of an ACA, and to varying degrees can be used as an indicator of the relative sophistication, experience, history, and other characteristics of the ACAs presenting them.

While an operator is free to create their own OSP in any format they wish and send it to an ACA for review, no ACA the authors are aware of will accept such a document because it varies too far from their *internal* norms which have been established for various reasons over many years. ACAs promote their version of the OSP template as the one that must be used if the operator wishes to engage with the ACA providing it, yet any ACA is free to accept another format, even another ACA's format.

That there exist as many versions of the OSP template as there are ACAs leads to a subtle and self-evident finding of this report, yet the authors consider this to be a critical finding: An OSP may take any form that any ACA finds acceptable.

Variability across OSPs does not appear to be nearly as important to compliance assessment as is the familiarity of ACA personnel with the OSP template and very importantly the ways in which the OSP template is complemented by other tools and processes available to those personnel.

Through professional experience and prior communication over the previous two decades with hundreds of ACA personnel and their contracted service partners, the authors assert that once ACA personnel become accustomed to the unique features of one OSP through routine use over time, the ease with which those personnel effectively interact with the information provided by the operator in that format increases measurably. Indeed, how well ACA personnel manage and interact with that information is an essential criterion of USDA/NOP Accreditation.

In order to accurately assess the compliance impact of variability or lack of alignment among OSP templates has on actual compliance assessments made by the ACAs using them, a study would need to be conducted wherein a large sampling of complete operator files held by the ACAs was analyzed for completeness and compliance with standards, followed by a review of accreditation assessments for

those ACAs who provided the OSP templates for the study. Only with this detailed study could the comparative impacts of variability and alignment be reliably determined.

Variability between OSP formats is only a challenge for those individuals or organizations who are either required to or desire to interact with multiple ACAs and OSP formats. The list of such entities is limited and notably includes:

- Independent (& free ranging) organic inspectors and reviewers
- Consultants
- Accredited Certifiers Association
- National Organic Program
- Select international authorities
- Select financial institutions
- Select U.S. governmental agencies

Individuals among the first four groups have accommodated these impacts of variability through constant exposure to this variability, often with decades of experience doing so. Transactions requiring familiarity with multiple OSP templates and completed OSPs are a common if not daily experience.

Individuals among the last three groups do not generally have the benefit of constant exposure to this variability, typically because consideration of OSPs is a minor, uncommon, or infrequent part of their typical workflow.

ACAs, collectively—with a 20+ year history of employing OSP templates and conducting OSP reviews, inspection report reviews, and certification decisions numbering well into the millions—have demonstrated that any OSP template in use by an accredited certifier, when completed, is reasonably adequate to accomplish the tasks mandated by the USDA/NOP.

Moreover, another qualitative, though deductive, conclusion is that ACAs have generally demonstrated an ability to adapt to changing conditions over time. Most ACAs who provided samples for the study were providing certification services before the NOP and its requirements for a system plan came into being. The other ACAs have benefited from staff and inspector movements that effectively brought per-NOP experience to ACAs who came into existence only after 2000. In both cases, frequent substantive changes have occurred in policies or events having long term impacts of certification activities and the organic industry since 2000; ACAs have adapted to each one. Summarized conclusions are provided below.

Though not directly addressed by the research questions of the study, an area of interest developed through the intensive review of the OSP templates presented and the discussions that ensued among the research team.

The authors recommend further consideration of developing a unified and uniform OSP template which could serve as both an example of best practices as well as a consistent entry point for those new to the organic industry. Many operators of this description are transitioning conventional agricultural enterprises for the first time and could benefit from other USDA programs, who in turn may find it preferable to consider information presented in a uniform format, thus encouraging governmental support at both the federal and state levels, for organic production in general. Such a uniform template may also provide a tool to encourage crop producers to begin keeping track of required information for

certification prior to the need to select an ACA. If considered to be merely one option available, accepting such an OSP template as a starting point for the steps toward certification would be the decision of ACAs.

Summary Conclusions

1. Some minor variability exists in the formats, level of detail and alignment with the NOP standards presented in OSP templates across the samples reviewed.
2. This variability in OSP templates does not substantively impact the ability of an ACA to effectively perform certification activities required in and of itself.
3. The organic certification community would likely benefit from a well-defined set of best practices to help guide the creation and adaptation of this essential feature of the certification process.
4. ACA efficiency and collective competence is enhanced through familiarity and repeated exposure to consistent formats, promoting a somewhat isolated view of what constitutes best practices.
5. ACAs have consistently demonstrated the ability to adapt to new regulations, requirements, and initiatives when needs arise.
6. Entities needing or wishing to engage with the organic sector for the first time or with increased frequency would benefit from having an option of a uniform, consistent OSP template with which to work.

Executive Summary

This report presents the findings of a comprehensive research project aimed at evaluating the alignment of Organic System Plans (OSPs) with the National Organic Program (NOP) standards set by the United States Department of Agriculture (USDA). The study was designed to answer four key research questions:

1. How well does a certifier's OSP align to the NOP standards?
2. Do certifier questions in the OSP conform to best practices?
3. What is the current level of OSP alignment amongst certifiers?
4. What are the most prominent areas of misalignment across certifiers' OSPs?

The research methodology was rooted in the philosophy of positivism, using an inductive approach and a quantitative data collection method. A multiple case study strategy was employed, with each case being a certifier's OSP measured against the NOP standards. A sample of 13 certifiers was selected from a list of 72, considering factors such as Crops Scope, Entity Type, and Geographic Location.

The findings of this research have significant implications for the organic certification process. By improving the alignment of OSPs with NOP standards, we can enhance the accessibility and consistency of organic certification, ensure the completeness of the OSP, and promote equity across certifiers and farms.

The ultimate goal is to contribute to the ongoing efforts to improve the integrity and effectiveness of the USDA's National Organic Program.

Introduction

The organic food industry has seen significant growth over the past few decades, driven by increasing consumer demand for products that are perceived as healthier and more environmentally friendly. The United States Department of Agriculture (USDA) has established the National Organic Program (NOP) to set standards for the production, handling, and labeling of organic agricultural products. A key component of this program is the Organic System Plan (OSP), which each farm operation must establish and have certified by an accredited certification agent.

However, inconsistencies among certifiers' OSPs have led to complexity in utilizing OSPs for additional programs and needs across agencies. These inconsistencies can create confusion for farmers seeking certification, and they can undermine the integrity of the NOP by leading to uneven application and enforcement of the standards.

This research project was designed to analyze the degree of alignment among certifiers' OSPs with the NOP standards and identify prominent areas of misalignment. The study sought to answer the following research questions:

1. How well does a certifier's OSP align to the NOP standards?
2. Do certifier questions in the OSP conform to best practices?
3. What is the current level of OSP alignment amongst certifiers?
4. What are the most prominent areas of misalignment across certifiers' OSPs?

The findings of this research will provide valuable insights for the USDA, certification agents, and farm operations. By identifying areas of misalignment, we can work towards greater consistency in the application of the NOP standards, making the certification process more accessible and equitable. Furthermore, by ensuring the completeness of the OSP, we can improve the integrity of the organic certification process.

The remainder of this report will detail the methodology used in the research, present the findings and discuss their implications.

Methodology

The methodology section of this research report provides a detailed account of the research design, data collection, and data analysis procedures employed in the study. The research was guided by the philosophy of positivism, which posits that there is a single reality that can be objectively observed. This philosophy aligns with the objective of this study, which was to measure the alignment of certifiers' Organic System Plans (OSPs) against the benchmark of the National Organic Program (NOP) standards.

Research Design

The research design was inductive in nature, as there was no established theory guiding this research. Instead, any theory related to this project was generated from the data collected. The research design was a multiple case study, with each case being a certifier's OSP. This design allowed for an in-depth examination of each OSP and its alignment with the NOP standards.

Data Collection

The data collection process involved a non-probability sampling strategy. From a qualifying list of 72 certifiers, 13 were selected based on considerations of Crops Scope, Entity Type, and Geographic Location. The goal was to produce a sample that resembled the total set as much as possible. Each certifier's OSP was then collected and prepared for analysis.

Data Analysis

The data analysis method employed was Descriptive Statistics. This method was chosen because it allows for a straightforward interpretation of the data and aligns with the research aims and philosophy. A question item analysis using quantitative methodology was also conducted as part of the overall data analysis process. The purpose of this exercise was to examine the structure of individual questions within each OSP and evaluate their alignment to established question-structure best practices in an effort to gauge how accessible individual OSP questions are to the average user. Google Sheets software was used to derive the results for both analyses, as it provided a user-friendly platform for data organization and analysis.

Research Strategy

The research strategy was in the form of a multiple case study. The depth of this strategy was an embedded case study where the aspect being examined was the certifier's OSP measured against the benchmark. This approach allowed for a detailed and comprehensive analysis of each OSP and its alignment with the NOP standards.

Time Horizon

The project followed a cross-sectional time horizon, with data collected at a specific point in time. This approach was suitable for this research as it allowed for the analysis of the current state of OSP alignment amongst certifiers.

In summary, the methodology employed in this research was designed to provide a robust and comprehensive analysis of the alignment of OSPs with NOP standards

Data Collection and Analysis

The data collection and analysis process for this research project was designed to provide a comprehensive understanding of the alignment of Organic System Plans (OSPs) with the National Organic Program (NOP) standards.

Step 1: Selection of Certifiers

The first step in the data collection process was the selection of certifiers. From a qualifying list of 72 certifiers, 13 were chosen based on considerations of Crops Scope, Entity Type, and

Geographic Location. This non-probability sampling strategy aimed to produce a sample that resembled the total set as much as possible.

Step 2: Collection of OSPs

Once the certifiers were selected, their OSPs were collected. Each OSP is a detailed plan that outlines how an operation will achieve, document, and sustain compliance with the NOP standards. The OSPs were collected directly from the certifiers, ensuring that the most current and accurate versions were used for analysis.

Step 3: Preparation of Data

After the OSPs were collected, they were prepared for analysis. This involved organizing the data in a Google sheet which facilitated analysis. The OSPs were divided into individual questions and headers were added to allow for the recording of question structure and NOP standards.

Step 4: Data Analysis

The data analysis process involved using Descriptive Statistics to examine the alignment of each OSP with the NOP standards. Each question or requirement in the OSP was compared with the corresponding NOP standard to determine whether it was aligned, partially aligned, or not aligned. This process was carried out for each OSP, resulting in a comprehensive dataset detailing the degree of alignment for each certifier.

A question item analysis using quantitative methodology was also conducted as part of the overall data analysis process. The purpose of this exercise was to examine the structure of individual questions within each OSP and evaluate their alignment to established question-structure best practices in an effort to gauge how accessible individual OSP questions are to the average user. Each question within an OSP was evaluated against the following established question-structure best practices using pass vs. fail scoring:

- Principle 1: Choose simple over specialized words.
 - *When a word exceeds 6 or 7 letters, chances are a shorter and easily understood word can be substituted.*
- Principle 2: Choose as few words as possible to pose the question.
 - *People may be tired to read long questions. If you don't want important words to get missed, remove the unimportant or redundant ones.*
- Principle 3: Ask questions in complete sentences.
 - *While it's tempting to meet the goal of minimizing words by using incomplete sentences, don't.*
- Principle 4: Avoid asking respondents to say YES in order to mean NO.

- *Do you favor or oppose not allowing companies to add you to email lists without your explicit permission and do you shop at these companies?*
- Principle 5: Avoid double-barreled questions.
 - *Asking two questions in one.*

Step 5: Use of Google Sheets

Google Sheets was used as the primary tool for data organization and analysis. The software allowed for the efficient management of the large dataset and facilitated the calculation of descriptive statistics. For example, the software was used to calculate the percentage of questions in each OSP that were aligned with the NOP standards.

```
function analyzeAlignment(spreadsheetId, totalQuestions) {
  // Open the spreadsheet by ID
  var spreadsheet = SpreadsheetApp.openById(spreadsheetId);
  var sheet = spreadsheet.getSheetByName("Sheet1");

  var range = sheet.getRange(6, 12, sheet.getLastRow()-5, 1); // adjusted
  // to start from row 6, column L
  var data = range.getValues();

  var citationCount = {};

  data.forEach(function(row) {
    if (row[0]) {
      // ensure row[0] is a string before splitting
      var cleanedData = cleanData(String(row[0]));
      var citations = cleanedData.split(',').map(function(citation) {
return citation.trim(); });
      citations.forEach(function(citation) {
        if (citationCount[citation] === undefined) {
          citationCount[citation] = 1;
        } else {
          citationCount[citation]++;
        }
      });
    }
  });

  Logger.log(citationCount);

  // new code to write data back into the sheet
  var outputSheet = spreadsheet.getSheetByName("AlignmentOutput");
```

```

if (!outputSheet) {
    outputSheet = spreadsheet.insertSheet("AlignmentOutput"); // creates a
new sheet named "AlignmentOutput" if it doesn't exist
}

var output = [];
for (var key in citationCount) {
    var percentage = (citationCount[key] / totalQuestions) * 100;
    output.push([key, citationCount[key], percentage.toFixed(2) + "%"]);
}

outputSheet.getRange(1, 1, output.length, 3).setValues(output); // writes
the output into the "AlignmentOutput" sheet
}

function cleanData(data) {
    // Remove the word 'and'
    var cleanedData = data.replace(/ and /g, ', ');

    // Replace semicolons with commas
    cleanedData = cleanedData.replace(/;/g, ',');

    // Remove any whitespace surrounding the commas
    cleanedData = cleanedData.replace(/ , /g, ',');

    // Remove any whitespace before and after the hyphens
    cleanedData = cleanedData.replace(/ - /g, '-');

    // Keep only the text in parentheses, numbers, letters, and associated
punctuation
    cleanedData = cleanedData.replace(/[^0-9a-zA-Z.,()-]/g, '');

    return cleanedData;
}

```

Step 6: Interpretation of Results

Once the data analysis was complete, the results were interpreted. This involved examining the descriptive statistics to identify patterns and trends in the data, such as which NOP standards were most commonly misaligned and which certifiers had the highest levels of alignment.

In conclusion, the data collection and analysis process was designed to provide a detailed and comprehensive understanding of the alignment of OSPs with NOP standards.

Findings

Step 1: Overview of Findings

The data analysis revealed that, on average, 12.3% of questions on an OSP did not align with a NOP standard. However, a significant majority of questions, approximately 92%, conformed to the best practices for question structure. The standard deviation of OSP alignment among certifiers was 5.3, indicating a moderate level of variability in alignment across different certifiers.

Step 2: Detailed Findings for Each Research Question

Research Question 1: How well does a certifier's OSP align to the NOP standards?

The analysis revealed that the level of alignment of certifiers' OSPs with NOP standards varied. On average, 12.3% of questions on an OSP did not align with a NOP standard. This suggests that there is room for improvement in ensuring that OSPs fully align with NOP standards.

Research Question 2: Do certifier questions in the OSP conform to best practices?

The study found that on average, 92% of questions on an OSP conformed to the best practices for question structure. This high percentage suggests that most certifiers are following best practices when formulating their OSP questions.

Research Question 3: What is the current level of OSP alignment amongst certifiers?

The standard deviation of OSP alignment among certifiers was calculated to be 5.3. This value indicates a moderate level of variability in alignment across different certifiers. Some certifiers have OSPs that align closely with NOP standards, while others have more significant areas of misalignment.

Research Question 4: What are the most prominent areas of misalignment across certifiers' OSPs?

The most prominent area of misalignment across certifiers' OSPs was found to be standard 205.301. This suggests that this particular standard is one where many certifiers' OSPs do not align well with the NOP standards.

In conclusion, the findings of this research provide valuable insights into the current state of alignment of OSPs with NOP standards. These insights can be used to guide efforts to improve the consistency and integrity of organic certification.

Discussion

The discussion section of this research report provides an opportunity to delve deeper into the findings, interpret their significance, and consider their implications for the field of organic certification.

Interpretation of Findings

The study found that, on average, 12.3% of questions on an OSP did not align with a NOP standard. This suggests that there is a significant degree of misalignment between certifiers' OSPs and the NOP standards. However, it's important to note that the majority of questions, approximately 92%, conformed to the best practices for question structure. This indicates that while there are areas of misalignment, many certifiers are following best practices in the formulation of their OSP questions.

The standard deviation of OSP alignment among certifiers was found to be 5.3. This moderate level of variability suggests that while some certifiers have OSPs that align closely with NOP standards, others have more significant areas of misalignment. This variability could be due to differences in interpretation of the NOP standards, differences in the types of operations being certified, or other factors.

The most prominent area of misalignment across certifiers' OSPs was found to be standard 205.301. This finding suggests that this particular standard may be difficult for certifiers to interpret or apply, or it may not be adequately addressed in the current OSPs.

Implications for Organic Certification

These findings have significant implications for the field of organic certification. The areas of misalignment identified in this study represent opportunities for improvement in the consistency and integrity of organic certification. By addressing these areas, we can enhance the accessibility and equity of organic certification, and ensure that all operations are held to the same high standards.

Furthermore, the findings suggest that there may be a need for additional guidance or training for certifiers, particularly in relation to the most commonly misaligned standards. This could take the form of additional resources, training programs, or changes to the NOP standards themselves to make them clearer and easier to apply.

Recommendations for Future Research

While this study provides valuable insights into the alignment of OSPs with NOP standards, there are several areas where further research could be beneficial. For example, future studies could explore the reasons for the misalignment of certain standards, or investigate the impact of different types of operations on OSP alignment. Additionally, research could be conducted to evaluate the effectiveness of different strategies for improving OSP alignment.

In conclusion, the findings of this research provide a foundation for improving the consistency and integrity of organic certification. By continuing to investigate these issues and implement improvements, we can ensure that the NOP continues to uphold the highest standards for organic production.