

Likelihood of Students in the Formal Education System in Trinidad to Pursue Agriculture as a Profession and the Implications for Development

Marcus N. A. Ramdwar, Instructor II

University of Trinidad and Tobago

Wayne G. Ganpat, Lecturer

University of the West Indies, Trinidad and Tobago

As part of Caribbean-wide initiatives to modernize agriculture, the formal education system for agriculture in Trinidad is coming under scrutiny. This paper investigates the perceptions students have about agriculture, the likelihood of those in the secondary school system (n=300) to pursue a formal education in agriculture, and the likelihood of those in the tertiary system (n=100) to continue in a career in agriculture. Likert-type scales were used to assess perceptions, and the likelihood of students in the formal education system in Trinidad to pursue agriculture as a profession was measured on a rating scale. Relationships were examined between school location (North, South, and Central), students' residential area (Rural, Urban), gender, and the likelihood to pursue a career in agriculture. Data were presented as descriptives and correlations. Results show that in schools where agriculture is not taught, while students firmly believed that agriculture is very important, very few would make it a career-choice. In secondary schools where agriculture is taught, students were generally favorable in their overall attitudes to agriculture, but there was only moderate indication that they would pursue the field further as a career. There were significant relationships between gender, school's location, and students' residential area and the likelihood to pursue agriculture. At the tertiary level, there was very strong indication that these students would continue in a career in agriculture. However, they were most likely to seek higher education and research in the field or seek out salaried positions in the public service. Female students were more likely to continue a career in agriculture than males. Recommendations included policy actions to introduce agriculture as a science to all students in the formal education system, a re-engineered curriculum based on modern technology use and specially developed career days, exhibitions and field visits to attract young people to the discipline.

Keywords: agriculture, students, formal education, career

The development of a well-trained workforce is critically important to the competitive success and the profitability of Trinidad agriculture. Building capacity through formal agricultural education is needed for the production of skilled manpower to serve the agricultural sector in several areas (Lindley, Van Crowder, & Doron, 1996). While the focus traditionally has been on providing high levels of skill in production practices, increasingly, due to global demands, post production, value addition, and entrepreneurship have come to the fore because of the re-emergence of food security as a global imperative (Mochoge &

Zziwa, 2007). For countries that depend on agriculture to feed its people and earn foreign exchange, it is critically important that students are exposed to agriculture as a science at the earliest time in their school career and intentional actions taken to promote entry into the profession.

Formal exposure to agricultural education in Trinidad and Tobago occurs at three levels: primary school, age range (5 – 11); secondary school level, age range (12 – 16); and tertiary level education ages 16 and over. Most primary school students are introduced to agriculture in the form of “gardening,” both for exposure to

the subject and for recreational purposes. Secondary schools are classified into so-called “prestigious schools,” which are state-assisted but managed by boards associated with various religious denominations, and perceived to be much better than the so-called “non-prestigious schools,” which are solely state-funded and managed. Students gain entry into “prestigious schools” based on high or above average performance at the island’s secondary entrance examination. Students of average and below performance gain entry into schools which are considered to be “non-prestigious.” Agriculture as an examinable subject is offered only at the fully state-funded schools. One obvious consequence of the classification of secondary schools in Trinidad and Tobago into “prestigious” and “non-prestigious” is the perception that agricultural education is for those students who are less academically inclined. The University of the West Indies (UWI) and the Eastern Caribbean Institute of Agriculture and Forestry (ECIAF) provide formal agricultural training towards the degree and diploma qualifications respectively. The degree allows for professional advancement whereas the diploma caters for para-professionals within the field of agriculture.

Hoover and Scanlon (1991) reported that the image of the agriculture profession and perceived future value of agricultural education were obstacles to student enrollment in the study area. Thompson and Russell (1993) reported that talented young students are being counseled or attracted into engineering, business, and medicine in pursuit of economic security and status. Onuekwusi and Ijeoma (2008) also agreed that students did not perceive agriculture as a discipline with a professional status. Goecker, Whatley & Gilmore (1999) suggested that “much greater efforts will be required to attract sufficient numbers of outstanding students to prepare for very challenging careers in the world’s food, agricultural, and natural resources system.” Talbert, Larke, Jones, & Moore (1997) noted that the majority of the undergraduate students enrolling in colleges of agriculture represent non-urban areas and suggested that college recruitment efforts should focus on students from urban areas. Jamali (2009) indicated that there was a need to change the mindset of people, who tend to be overly

influenced by tradition and social/cultural norms.

From a global perspective, the Food and Agriculture Organization (FAO) (1997) pointed to the failure of agricultural education and training in many developing countries to adapt to a changing world.

Agricultural development in the Caribbean region is changing, and a new agricultural development model is currently being promoted. According to Chakeredza et al. (2008, p. 326) it is the development of the human resource which will “get agriculture moving.” This alternative approach will require a new cadre of agricultural scientists. More astute professionals and paraprofessionals will be needed to sustain the approach, and it is imperative that action be taken in Trinidad to address the profession’s growing demands.

Purpose of the study

It is the belief that recruitment efforts into formal agricultural programs in Trinidad should attempt to attract students who are more intellectually inclined and not left to chance for entry by students not doing well academically. The purpose of the paper is to determine the type of students who study agriculture, their perceptions of the profession, and, more importantly, the likelihood that they will make a career in agriculture. The results are expected to highlight areas for intervention by policy makers coming jointly from the areas of agriculture and education to meet the national requirements for agricultural workers and professionals. The following objectives were identified:

1. To determine secondary school students’ perception of agriculture’s importance to the country and possible career choice,
2. To determine agricultural science students’ perception of agriculture and likelihood to pursue agriculture as a career, and
3. To determine what factors influenced tertiary level agriculture students to choose agriculture as a study area and likelihood to stay in the profession.

Methodology

The study was done in three phases. In the first phase, a limited survey was done in 2007 to determine students' perception of the importance of agriculture to Trinidad and to what extent they would consider a career in agriculture. A sample of 200 secondary schools students (age 14–16 years) from both religion-based schools, which, over time, have come to be considered as "privileged" or "prestigious," and government-based schools, which are considered as "non-prestigious," were surveyed. The sample represents about five percent of the population in the 14–16 age group category.

Based on the findings in the first phase, a second phase in 2008 focused on students in the so called "non-prestigious", government-run schools where agricultural science is taught as an examinable subject. Five schools each in the North, Central, and Southern regions in Trinidad were randomly selected from all schools teaching agricultural science, then 20 students were randomly selected from each school from the class register and surveyed, making a sample size of 300. This represented about 10% of the population of agricultural science students. The self-reporting survey questionnaire sought to explore students' attitude towards agriculture, and the likelihood that they would pursue a career in agriculture. Beyond personal and demographic data, a 10-item Likert-type scale was used to assess their attitudes. Students were asked to respond to both positively and negatively worded statements to indicate whether they strongly agreed (SA), agreed (A) disagreed (D), or strongly disagreed (SD) with the sentiment expressed. Responses were scored (SA = 4; A = 3; D = 2; SD = 1) for positively worded statements, and scores were reversed for negatively worded statements. Mean scores for each item statement as well as overall mean scores were calculated, reported, and used as an indication of students' attitude to the profession. A higher mean score means a more favorable disposition while a lower mean score means a less favorable disposition.

The third phase of the investigation took place in 2009. Students pursuing agriculture at the diploma and degree level ($n = 100$) were surveyed to determine what influenced them to study agriculture beyond the secondary level and the likelihood that they would continue in a

career in agriculture. The sample was made up of 50 Eastern Caribbean Institute of Agriculture and Forestry (ECIAF) diploma level agriculture students (out of a population of 100) and 50 University of the West Indies agriculture students at the undergraduate level (out of a population of 150) randomly selected and asked to complete a short questionnaire. Beyond personal and demographic data, students were asked to respond to 10 statements to indicate the level of influence each suggested reason had on their decision to pursue agriculture as a profession. Statements were scored as follows: Strong influence = 4, Moderate influence = 3, Low level of influence = 2, and No influence = 1. Mean scores were calculated for statements, reported, and used to describe main influences on students' decisions. Likelihood to pursue agriculture as a career (secondary level) and likelihood to remain in agriculture (tertiary level) were both measured by single item scales.

Instruments were reviewed for content validity by extension colleagues and pretested before being completed. All data were coded and analysed using the Statistical Package for Social Sciences (SPSS) software. Most data results are presented as descriptives. Relationships are also examined using both Spearman's Rho and the Kruskal-Wallis test depending on the type of data and assumptions being made about normality.

Results

The results are provided in three sections according to the phase of the study.

A. Secondary schools students' perception of agriculture's importance and career choice

Students' responses for both "prestigious" and "non-prestigious" schools for the importance of agriculture to Trinidad and agriculture as a career option were compared. The results revealed that there was no significant difference with respect to the students' perception of the importance of agriculture. Both categories of students overwhelmingly agreed (with equal percentages; 96% yes and 4% no) that agriculture was important to Trinidad. However, there is a significant difference ($p < 0.0001$, based on Fisher's exact test) between their opinions about choosing agriculture as a career option. "Non-prestigious" school students

were more likely to choose agriculture as a career option (76% Yes) in contrast to “prestigious” secondary school students (4% Yes).

B. Agricultural students' attitudes to agriculture and likelihood to pursue as a career

This phase of the study was conducted among the so called “non-prestigious” secondary schools which teach agricultural science as an examinable subject. The sample population ($n = 300$) comprised of three sub samples of 100 students from each of the Northern, Central, and Southern regions of Trinidad. For purposes of the study, all Northern schools will be considered as urban-based, and both Central and Southern countries as rural-based. This reflects to a large extent the demographic distribution of the population. The sample consisted of males ($n = 145$) and females ($n = 155$). There were 115 urban respondents and 185 rural respondents.

Table 1 shows mean response scores of all respondents ($n = 300$) for the attitudinal items investigated. The table also summarizes relationships between students' gender, geographic location of school, students' residence and the attitudinal items under investigation, and the likelihood of pursuing a career in agriculture. Generally students' overall attitude was positive. An examination of the item statements show the highest mean scores were obtained for the attitudinal items that dealt with the economic importance of farming: “agriculture is an excellent opportunity for self-employment” ($M = 3.51$) and respondent's belief that “one can make a good living from farming”

($M = 3.36$). Their positive attitude was also reflected in their general disagreement with negatively worded sentiments; “agriculture is a dead end job” had a mean response of 3.34, and “agriculture should be for those who do not do well in school” had a mean of 3.28. Again, they were fairly proud “to let other students know that I am doing agricultural science as a subject” ($M = 3.11$). Students however showed some agreement with negative sentiments such as “people generally look down at farming,” which had the lowest mean score of 2.23, and “farming is too much hard work,” which also had a mean value of 2.61. There were significant weak negative correlations for nearly all the attitudinal items examined and the likelihood that they would pursue a career in agriculture, suggesting that regardless of the fairly good expressions and sentiments they held about agriculture, based on responses to some statements, they were not likely to pursue a career in the field. Thus, the “likelihood to pursue a career in agriculture” mean score (2.57) was just over the midpoint on the four point scale.

The data show that there were significant associations between gender, students' residence, and school's location and the likelihood that they will pursue a career in agriculture. Female students were more likely to pursue a career in agriculture than male students, students from urban-based schools were less likely than rural-based schools to pursue agriculture, and schools in the Central and South regions of the country were more likely to pursue agriculture as a career option.

Table 1
Means, Standard Deviations for Item Statements, Relationships Between Selected Parameters, Item Statements and the Likelihood To Pursue A Career In Agriculture, Trinidad and Tobago, 2008

Likelihood Response	Mean (M)	SD	Relationship with "likelihood to pursue a career in agriculture". (r)
What is the likelihood that in the future you will pursue a career in agriculture?	2.57	0.93	–
<i>Item statements</i>			
1. It is an excellent opportunity for self-employment.	3.51	0.66	-0.19 **
2. I believe one can make a good living from farming.	3.36	0.67	-0.18 **
3. Agriculture is a dead end job.	3.34	0.65	-0.10
4. Agriculture should be for those who do not do well in school.	3.28	0.86	-0.05
5. I am proud to let other students know that I am doing agricultural science as a subject.	3.11	0.87	-0.35 **
6. A young person can make a good life through farming.	3.11	0.61	-0.21**
7. If more modern technology, including computers were involved in farming, I would be definitely interested.	2.98	0.86	0.04
8. Farming is too much hard work.	2.61	0.88	-0.28 **
9. People generally look down at farming.	2.23	0.83	-0.06
<i>Other variables</i>			X ² (df)
Gender (Male = 1; Female = 2)			5.28 * (1df)
School Location (North = 1, Central = 2, South = 3)			11.43** (2df)
Residence (Urban = 1; Rural = 2)			117.2** (1df)

*. Significant at the 0.05 level (2-tailed); ** ; Significant at the 0.01 (2-tailed).
 "r" is based on Spearman's rho ; X² (df) refers to Chi Square value (degrees of freedom)

C. Diploma- and tertiary-level agriculture students reasons for entry into the profession and likelihood to continue

The sample (n = 100) consisted of male (n = 58) and female (n = 42) respondents, who were mostly from rural areas (n= 78).

Table 2 summarizes in order of importance, based on mean scores, the reasons which influenced students' decisions to enroll into formal agricultural programs beyond secondary school in Trinidad. The table also summarizes the relationships between gender, tertiary institution, area of residence, and the decisional influences on the likelihood that students "will continue a career in agriculture in the future."

The highest ranked reason (M = 3.31) was participants wanting "to make a difference to the

agriculture sector." Employment issues whether self-employment and employment in the government services were also high on students minds with mean values of 3.23 and 3.20, respectively. Further study, secondary school exposure to the subject, and to become a well-trained farmer were also highly influential reasons. The lowest mean was (1.59) was for the reason that "no other option of study was available." Data show that there is a high likelihood (M = 4.62) that these students would remain in agriculture with some 68% expressing that there is a strong likelihood to continue a career in agriculture in the future.

While most of the reasons presented to respondents were significantly associated with their likelihood to continue a career in

agriculture in the future, the strongest significant positive correlations were with respondents' career desires "to further a professional career at the tertiary level," followed by the reason "to become a professionally trained farmer." All other significant correlations were weak. No relationships were found between students wanting "to become a secondary school teacher in agriculture," to use agriculture studies "as a path way option for an alternative study," and to "get employed in the Ministry of Agriculture." The only negative correlation (-.30) was to the

statement "no other option was available to me," suggesting that any agreement to this statement negatively impacted on the decision to continue a career in agriculture.

With respect to the other variables examined, type of tertiary institution and students' residential area were not associated with likelihood to continue a career in agriculture. However, gender was significantly associated as female students were more likely to continue a career in agriculture.

Table 2
Ranked Means, Standard Deviations for Influential Reasons and Relationships Between These Influential Reasons, Selected Parameters and Likelihood To Continue A Career In Agriculture, Trinidad and Tobago 2009 (N= 100).

Likelihood Response	Means Rank	(SD)	Relationship with "likelihood to continue a career in agriculture". (r)
What is the likelihood that in the future you will continue a career in agriculture?	4.62	0.59	-
<i>Suggested reasons</i>			
1. I felt as though I could make a difference to the agriculture sector.	3.31	0.84	0.30 **
2. I saw an opportunity for self-employment.	3.23	0.93	0.32 **
3. I wanted to get employment in the Ministry of Agriculture.	3.20	1.10	0.19
4. I wanted to further a professional career at the tertiary level at the Masters or Doctoral levels.	3.19	1.07	0.51**
5. I was exposed to the subject in school which led to my decision.	3.07	1.08	0.21*
6. I wanted to become a professionally trained farmer.	3.03	1.13	0.43 **
7. Parents and/or family were involved in farming.	2.68	1.04	0.21 *
8. I wanted to become a secondary school teacher in agriculture.	2.47	1.15	0.13
9. It was a path way option for an alternative study.	2.18	1.13	- 0.15
10. No other option was available to me.	1.59	0.92	- 0.30 **
<i>Other variables</i>			X ² (df)
Gender (Male = 1; Female = 2)			15.45** (1df)
Tertiary institution (UWI = 1; ECIAF = 2)			2.52 (1df)
Residence (Urban = 1; Rural = 2)			0.02 (1df)

"r" based on Spearman's rho; X² (df) Chi Square (degrees of freedom)

** Significance at the 0.01 level (2-tailed). * Significance at the 0.05 level (2-tailed)

Discussion

Students throughout the secondary school system had strong positive perceptions about the importance of agriculture to Trinidad. However, the low likelihood of “prestigious” secondary school students to consider agriculture as a career option suggests a general lack of interest in the discipline from an academic standpoint.

According to Barrick and Hughes (1993), during early adolescence, students are formulating career interest and goals, thus students from “prestigious school” where agriculture was not a component of the curriculum were unlikely to consider the discipline as a career option. In spite of the belief that, if one exposes younger students to pre-secondary agricultural education, one can develop a positive association with agriculture (Perritt & Morton, 1990), the failure to include agriculture in the curriculum across the educational system in Trinidad would further highlight the stigma. Thompson and Russell (1993) indicated that students who have taken coursework in agriculture expressed more favorable beliefs about agricultural careers and are more inclined to consider agriculture as an area of study than those students without such exposure. Donnermeyer and Kreps (1994) found that students already exposed to agriculture tended to enroll in agriculture more often than students without exposure.

The present study found that, although there was an overall positive attitude of students in the “non-prestigious” secondary schools to agriculture, there was only moderate indication that they would pursue a career in agriculture. Krueger and Riesenber (1991) reported that student misperceptions of the agricultural industry and agricultural opportunities may negatively affect recruitment. The negative perception of careers in agriculture among high school students were also related to student lack of awareness of the range of career opportunities in agriculture and the perception as agriculture involving farming alone (Mallory & Sommer, 1986). The perceived future value of careers and opportunities in agriculture as not rewarding may also be deterrents to the likelihood of the discipline for career pursuits regardless of the student’s exposure to the discipline in the “non-prestigious” school system. Muir-Leresche and Scull-Carvalho (2006) stated that the major

focus of tertiary agricultural education has been on the production of public sector employees. This statement is supported by the findings of this study, and this aspect can negatively impact agricultural development in Trinidad.

Enhancing the attractiveness of the agriculture sector through the establishment of rewarding careers and the modernization of agriculture to be technology-driven can attempt to diminish this negative perception and provide lucrative employment. Modernization of the agriculture curriculum for secondary schools would be an immediate first step. Moreover, the creation of a facilitating environment by the government for young tertiary-level graduates such as soft loans and easier access to land may help encourage them to move away from academic and career agriculture in the public service to become professional farmers.

The study also found that rural youth were less inclined to continue a career in agriculture than their urban respondents at the secondary level. Bajema, Miller, and Williams (2002) indicated that researchers have reported lower academic and occupational aspirations for rural youth than their urban peers. It may seem that rural youth are no longer content simply to follow careers in agriculture, that agriculture should be the only option for them because of where they live. The south-based schools, which are generally rural in Trinidad, may have a similar explanation. General increased awareness through increased access to the internet in schools may have alerted rural students to the wider range of alternative careers available to them. Barcinas (1989) previously concluded that urban students have higher educational and occupational aspirations than rural students, and their indication pursue agriculture careers cannot be taken too strongly based on the moderate mean (2.57) “likelihood to pursue agriculture” score. Parental pressures and other more lucrative and fashionable career options may pull them away from agriculture at decision time.

The positive meaningful relationships between career aspirations and likelihood to continue careers in agriculture for tertiary-level students were not unexpected. The desire to make a difference to the agriculture sector was a prominent influence which suggested that students had a desire to improve agriculture in Trinidad. Type of institution (ECIAF; UWI) and

residential area (rural; urban) did not separate students on the “likelihood to continue career” question, but they were separated on gender. Female students, both in the secondary school system and tertiary system, were more likely to continue agriculture careers. Absolutely nothing is wrong with this, given that agriculture is moving away from being muscle-driven to brain-driven. This is a welcomed finding, given that historically, females were less inclined to pursue agriculture for socio-cultural reasons. However, some action is still needed to have males enter the sector in larger numbers.

Conclusion and Recommendations

Students’ lack of exposure to agriculture in all schools is an initial deterrent to some students pursuing agriculture as a future career. In schools where agriculture is taught, the present curriculum is structured in such a manner that students spend fairly long periods of time in the hot sun using traditional labor intensive technologies. This is a further disincentive to students changing their perception of agriculture and thus wanting to continue a career in the field. For those students who study agriculture at the tertiary level, the major aspirations are to get a salaried position and to study for advanced degrees in agriculture. There is a serious gender issue to be addressed, whereby males, both at the secondary and tertiary levels, were less likely to continue into a career in agriculture. Notwithstanding the important contribution females can make, more males need to be encouraged.

Development of the sector would be seriously stymied if actions are not taken to correct this situation. While the country needs academics in the field, it also requires persons disposed to “scientific farming,” that is individuals educated to the diploma and bachelor’s level and who engage knowledge based farming using modern technologies and with a business-like approach. The development of a cadre of successful, professional farmers will have the effect of changing students’ perceptions of agriculture and more may seek to pursue agriculture a preferred career choice.

Some actions to further promote agriculture as a rewarding career include policy initiatives to introduce agriculture as a science to all students in the formal education system. Furthermore a re-engineered curriculum based on the use of modern technology, would serve to de-stigmatize its perception as a discipline for weaker, rural-based students and thus all students can meaningfully consider it for post-secondary study and career aspirations. Specially developed career days, exhibitions, and field visits promoting agriculture as a viable and rewarding career choice would contribute to changing perceptions. Technology-driven farms as demonstration units would also be useful.

On the national level, general increased public awareness about food security, national food production interests, and re-defining agriculture as a professional discipline would change the adult population’s negative perception about agriculture and this may impact on their children’s choice of career.

References

- Bajema, D., Miller, W., & Williams, D. (2002). Aspirations of rural youth. *Journal of Agricultural Education*, 43(3), 61–71. doi: [10.5032/jae.2002.03061](https://doi.org/10.5032/jae.2002.03061)
- Barcinas, J. D. T. (1989). *Comparison of rural and urban secondary schools and the twelfth-grade students in Ohio*. (Unpublished doctoral dissertation). The Ohio State University, Columbus, OH.
- Barrick, R. K., & Hughes, M. (1993). Perceptions of state vocational educational administrators relevant to agricultural education in the middle grade. *Proceedings of the Central_Regional_Research Conference in Agricultural Education*.
- Chakeredza, S., Temu, A.B., Saka, J. D. K., Munthali, D. C., Muir-Leresche, K., Akinnifesi, F. K., Ajayi, O. C., & Sileshi, G. (2008). Tailoring tertiary agricultural education for sustainable development in Sub-Saharan Africa: opportunities and challenges. *Journal of Scientific Research and Essay* 3(8), 326–332.

- Donnermeyer, J. F., & Kreps, G. M. (1994). Assessing colleges of agriculture freshmen. *NACTA Journal*, 38(1), 45–48.
- Food and Agriculture Organization of the United Nations. (1997). *Issues and opportunities for agricultural education and training in the 1990s and beyond*. Rome, Italy: FAO.
- Goecker, A. D., Whatley, C. M., & Gilmore, J. L. (1999). *Employment opportunities for college graduates in the food & agricultural science, United States, 2000–2005*. United States Department of Agriculture and Purdue University.
- Hoover, T. S., & Scanlon, D. C. (1991). Enrollment issues in agriculture education programs and FFA membership. *Journal of Agricultural Education*, 32(4), 2–10.
- Jamali, K. (2009). The role of women in agriculture and its allied fields: A case study of Pakistan. *European Journal of Social Sciences*, 7(3), 71–77.
- Krueger, D. E., & Riesenber, L. E. (1991). Careers in agriculture as perceived by high school juniors and seniors. *Proceeding of the Eighteenth Annual National Agricultural Education and Research Meetings*, 63–69.
- Lindley, W. I., Van Crowder, L., & Doron, N. (1996). *Education in agriculture: Link with development in africa*. Africa. City, State: FAO Research, Extension and Training Division.
- Mallory, M., & Sommer, R. (1986). Student images of agriculture: Survey highlights and recommendations. *Journal of the American Association of Teacher Educators in Agriculture*, 27(4), 15–17, 25.
- Mochoge, B., & Zziwa, S. (2007, March). *Food security in the IGAD Region*. Paper presented at the Continental Food Security EC seminar in Nairobi, Kenya.
- Muir-Leresche, K., & Scull-Carvalho, S. (2006). *Improving approaches for effective teaching and learning: tertiary agricultural education*. City, Nairobi: World Agroforestry Centre.
- Onuekwusi G.C., & Ijeoma, L. (2008). Attitude of secondary school students in Abia State, towards career in agriculture. *Agricultural Journal* 3(2), 102–106.
- Perritt, D., & Morton, D. (1990). Pre-secondary agriculture: Preparing for the future. *The Agricultural Education Magazine*, 63(1), 14–15.
- Talbert, B. A., Larke, A., Jones, W. A., & Moore, R. O. (1997). Recruitment and retention of underrepresented groups: A model for success. *NACTA Journal*, 41(2), 51–56.
- Thompson J. C., & Russel E. B. (1993). Beliefs and intentions of counselors, parents and students regarding agriculture as a career choice. *Journal of Agricultural Education*, 34(4), 55–63. doi: [10.5032/jae.1993.04055](https://doi.org/10.5032/jae.1993.04055)

MARCUS N. A. RAMDWAR is an Instructor II in the Department of Biotechnology, Agriculture and Food Production Technologies at the University of Trinidad and Tobago, Caroni North Bank Road, Centeno, Trinidad and Tobago, marcusramdwar@tstt.net.tt

WAYNE G. GANPAT is a lecturer of Agricultural Extension in the Department of Agricultural Economics & Extension, The University of the West Indies, St. Augustine, Trinidad and Tobago, waygan@flowtrinidad.net

Authors' Note

The authors would like to thank Mr. Bruce Lauckner and Mr. Marcus Jones of the Caribbean Agricultural Research and Development Institute (CARDI) for assistance with the data analysis.