Determining the Relationship between the implementation of Basin Management Action Plans and the Nitrogen levels in the Springs

Student Researcher(s): <<enter here>>
Chapter: <<enter here>>
State: <<enter here>>
Category: Choose an item.
Division: Choose an item.

Importance

Why is the topic important to the agriculture industry?

<<Provide one clear, detailed paragraph answer here. The importance section is worth 10 points.>>

Without water, agriculture would have no crops and no livestock, no product to ship off to stores, and nothing to put on the shelves for consumers to purchase. Ultimately, the industry that feeds, clothes, and supplies the resources of the world would die. In a planet of over seven-and-a-half-billion people who, in some manner or another, seem to bring damage to the majority of natural resources they touch, the topic of spring water management and water conservation is pertinent to keeping water safe, available, and affordable for the industry of agriculture and society to use.

What problem does the investigation solve for agriculture?

<<Provide one clear, detailed paragraph answer here. The importance section is worth 10 points.>>

The investigation identifies the relationships between the Basin Management Action Plans (BMAPS) and the nitrogen content of the springs of the Suwannee River, which would show the effectiveness of the implemented BMAPS. This means that the farmers, bankers, tax paying civilians, and influential leaders who are in the agricultural industry could see if there is importance in preserving water quality through BMAPS, which could lead to more farmers participating in maintaining healthy spring conditions. Cleaning water is costly, and with proper education, the amount of resources put into purifying water for agriculture could be eventually slimed down, after the pureness of the water returns to a healthier level. This investigation shows if further action needs to be taken in order to protect the springs for the sake of the whole

chain of people linked to agriculture and the environment

Other's Work

<<Clearly details what information currently exists concerning the research project. Reference where the information was found (website, book, article, etc.) is listed, then a paragraph written by the student researcher(s) clearly describing the reference and information it provided for each publication used. The other's work section is worth 15 points.>>

http://www.srwmd.state.fl.us :

The http://www.srwmd.state.fl.us website had detailed information on the information provided by Mr. Ben Glass. They used it to find out the meanings of the terms on the Hart Springs and Otter Springs water quality spread sheet, identify where the BMAPS had been put into effect.

http://edis.ifas.ufl.edu/pdffiles/FR/FR29400.pdf - Lauren McDonell & Martha C. Monroe

This article discusses different agencies that protect natural resources across the landscape of the Suwannee River Management Area. In 1999, the Florida Forever land acquisition program was founded to promote ecological improvements and to conserve and protect water and natural resources in lieu of the increased population in Florida. This article also informed of non-point-sources pollutants outside of agriculture for consideration of potential controls that may not be cause by agricultural activity.

Materials and Methods

<<Clearly written to enable others to replicate the study and results. Section is written in first person and encompasses all materials required. If used, the statistical procedures are included. The materials and methods are worth 10 points.>>

Materials listed in bullets with quantities – be certain to include safety materials, but don't get caught up in listing out papers, pencils, paperclips, computer – that would be too much detail

Methods (procedure) **–** This could follow a step-by-step process of the procedure of the actual work that was done to conduct the experiment. It could be separated into major portions of the experiment, example sub-headings might be: construction of experiment, data collection, data analysis.

Hypothesis/Anticipated Results

<< Student researcher(s) clearly states the hypothesis and/or anticipated results. This section is worth 5 points.>>

Potentially the use of "if then statements" for example:

Hypothesis: If I water plants, then they will grow.

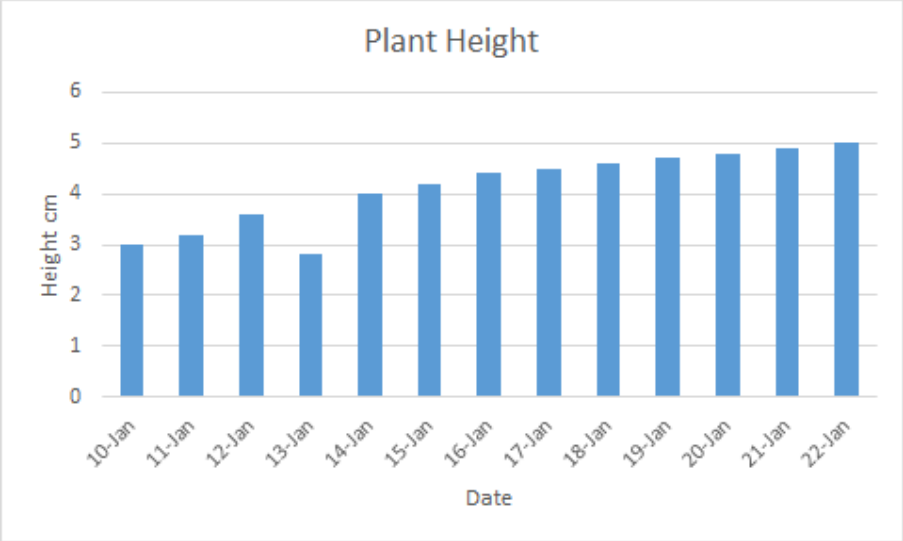
Anticipated Results: The trials that contain the correct amount of fertilizer will have the highest percentage of growth and the largest yield.

Results

<<Written results of the project are summarized. Trends and relationships are clearly addressed. No conclusions are made in this section. Data that can stand alone in the form of tables and/or figures are included. The results are worth 20 points.>>

Results section should only contain facts. Results could be in the form of tables and charts. If tables and charts are utilized be certain they contain titles, axis, labels, and keys (if necessary). It is **vitally important** that the results contain a written explanation of every table and chart. For example:

Figure 1.



In the above graph, plant height was tracked over the course of twelve days. Date is indicated on the x-axis and height is indicated on the y-axis. Plant height increased from 3cm on the first day to 5cm on the twelfth day.

Discussion

What do the results of the study mean?

<<Provide a clear, detailed answer here. The discussion section is worth 10 points.>>

The results of this study indicated that there was an effect between the use of fertilizer and non-fertilizer on the growth of plants. Plants that received a 10-10-10 fertilization had the highest growth and lowest leaking of fertilizers through the soil profile (up to 2 inches in depth). While the plants that received the 30-30-30 fertilizer also grew equally to those that received the 10-10-10, there was more fertilizer that leached through the soil profile (up to 10 inches in depth). Plants that did not receive fertilizer treatment, and acted as the control, grew the least and had no fertilizer leaching in the soil profile. This means that fertilizer is helpful for plant growth, but that adding too much fertilizer may not improve plant growth and could cause pollution through the soil profile which may leach into the groundwater.

How are they related to what others found in the "Other's Work" section?

<<Provide a clear, detailed answer here. The discussion section is worth 10 points.>>

In this section – the purpose is to consider the results and "what it means" sections in relation to what others had found previously – does your work support their work? Where your findings different then others work? Then explain. It would be a great idea to address each listed in others work or to combine and address in separate paragraphs.

Conclusions

<<The conclusion clearly states what should be done and/or changed as a result of the research. Clearly states what the next steps are to continue the research. Conclusions are worth 10 points.>>

The conclusions need to address the original topics and investigation, they need to be within the scope of the study – meaning – don't jump to conclusions and don't make more out of the study then what should be drawn from the data. For example: If you surveyed 30 students at your school and they chose the blueberries over the strawberries, you should not conclude that humans like blueberries more then strawberries. You might conclude the that participants in the study preferred blueberries over strawberries, or you might go as far to say that younger populations at your school preferred blueberries over strawberries. However making the jump that everyone prefers this is a bit far reaching.

Summary

<<The summary is two to three paragraphs describing the study conducted. Describes why the student researcher(s) chose to conduct the study, why the study is important to the agriculture industry, how the study was conducted, what was found by conducting the study and how the results apply within the agriculture industry. The summary is worth 5 points.>>

Acknowledgements

<<Detailed list or paragraph is included acknowledging anyone who assisted with any aspect of the project and how they helped. The acknowledgements are worth 5 points.>>