



Impact of soil temperature, pH and carbon dioxide on the population and efficiency of fluorescent pseudomonad in the rhizosphere soil of *Pokkali* rice

Surendra Gopal, K. 

Department of Agricultural Microbiology, College of Agriculture, Kerala Agricultural University, Thrissur, Kerala, India.

Reshma Francis

Department of Agricultural Microbiology, College of Agriculture, Kerala Agricultural University, Thrissur, Kerala, India.

Sreelatha A. K.

Rice Research Station, Kerala Agricultural University, Vayalath, Kerala, India.

ARTICLE INFO

Received : 18 December 2021

Revised : 27 March 2022

Accepted : 16 July 2022

Available online: 08.01.2023

Key Words:

Fluorescent pseudomonads

Pokkali rice

Soil parameters

Soil temperature

ABSTRACT

The present study was aimed at the evaluation of soil temperature, pH and carbon dioxide evolution on the number and efficiency of fluorescent pseudomonads around the root system of *Pokkali* rice at Vytilla in Ernakulam district of Kerala. Two plots (40 m²) comprising control (without application of *Pseudomonas fluorescens*) and *P. fluorescens* treated plants were used for the field experiment. The isolates of fluorescent *Pseudomonads* or *Pseudomonas fluorescens* were counted and their efficiency was assessed for IAA, ammonia, HCN and siderophore production. Simultaneously, soil temperature, pH, and carbon dioxide evolution were also recorded. A total of 6 fluorescent pseudomonads (VPAU1, VPAU2, VPAU3, VPAU4, VPAU5 and VPAU6) were found during the crop period. All the isolates produced IAA and ammonia with varying degrees of intensity. Three isolates (VPAU1, VPAU3 and VPAU4) produced HCN, and no microbial isolates produced siderophore. The effect of soil temperature, pH, EC and carbon dioxide evolution was correlated with the number of fluorescent pseudomonads in the soil. The bacteria were significantly affected by pH and EC, whereas soil temperature and CO₂ evolution did not show any effect on the number of fluorescent pseudomonads. There was no significant influence of soil temperature, pH, EC and carbon dioxide evolution on indole acetic acid production, ammonia, and HCN production. Inoculated *Pseudomonas fluorescens* did not survive in *Pokkali* rice fields. However, further studies are needed for at least three seasons in *Pokkali* soils to confirm the results of the present study.

Introduction

Upadhyay *et al.* (2011) reported that saline-tolerant PGPR can alleviate soil salinity stress during plant growth and exopolysaccharide (EPS) secreted by the bacteria. Different bacterial genera have been proposed to alleviate salt stress in plants, such as *Agrobacterium*, *Arthrobacter*, *Azotobacter*, *Azospirillum*, *Bacillus*, *Burkholderia*, *Klebsiella*, *Pseudomonas* (Costa-Gutiérrez *et al.*, 2020; Lami, *et al.* 2020), *Rhizobium*, and *Serratia*. Earlier studies have reported that the potential PGPR with plant growth-promoting traits should be able to

efficiently colonize the rhizosphere and survive under field conditions for effective use as bioinoculants (Amaya-Gómez *et al.*, 2020). Fluorescent *Pseudomonads* are the most promising plant growth-promoting rhizobacteria involved in the biocontrol of plant diseases, produce phytohormones, hydrogen cyanide (HCN), siderophores, indole-3-acetic acid (IAA), and antibiotics. Matsuguchi and Sakai (1995) reported that the total bacteria and gram-negative bacterial population did not change significantly but total

Environment Conservation Journal

VM Jensen



Environment Conservation Journal:

Environment Conservation Journal Book Review: Unveiling the Power of Words

In a world driven by information and connectivity, the energy of words has become more evident than ever. They have the capacity to inspire, provoke, and ignite change. Such may be the essence of the book **Environment Conservation Journal**, a literary masterpiece that delves deep into the significance of words and their affect our lives. Published by a renowned author, this captivating work takes readers on a transformative journey, unraveling the secrets and potential behind every word. In this review, we shall explore the book's key themes, examine its writing style, and analyze its overall affect readers.

<https://py.bijouxmedusa.com/results/uploaded-files/default.aspx/revit%20mep%202014%20user%20guide.pdf>

Table of Contents Environment Conservation Journal

1. Understanding the eBook Environment Conservation Journal
 - The Rise of Digital Reading Environment Conservation Journal
 - Advantages of eBooks Over Traditional Books
2. Identifying Environment Conservation Journal
 - Exploring Different Genres
 - Considering Fiction vs. Non-Fiction
 - Determining Your Reading Goals
3. Choosing the Right eBook Platform
 - Popular eBook Platforms
 - Features to Look for in an Environment Conservation Journal
 - User-Friendly Interface
4. Exploring eBook Recommendations from Environment Conservation Journal
 - Personalized Recommendations
 - Environment Conservation Journal User Reviews and Ratings
 - Environment Conservation Journal and Bestseller Lists
5. Accessing Environment Conservation Journal Free and Paid eBooks

- Environment Conservation Journal Public Domain eBooks
 - Environment Conservation Journal eBook Subscription Services
 - Environment Conservation Journal Budget-Friendly Options
6. Navigating Environment Conservation Journal eBook Formats
- ePub, PDF, MOBI, and More
 - Environment Conservation Journal Compatibility with Devices
 - Environment Conservation Journal Enhanced eBook Features
7. Enhancing Your Reading Experience
- Adjustable Fonts and Text Sizes of Environment Conservation Journal
 - Highlighting and Note-Taking Environment Conservation Journal
 - Interactive Elements Environment Conservation Journal
8. Staying Engaged with Environment Conservation Journal
- Joining Online Reading Communities
 - Participating in Virtual Book Clubs
 - Following Authors and Publishers Environment Conservation Journal
9. Balancing eBooks and Physical Books Environment Conservation Journal
- Benefits of a Digital Library
 - Creating a Diverse Reading Collection Environment Conservation Journal
10. Overcoming Reading Challenges
- Dealing with Digital Eye Strain
 - Minimizing Distractions
 - Managing Screen Time
11. Cultivating a Reading Routine Environment Conservation Journal
- Setting Reading Goals Environment Conservation Journal
 - Carving Out Dedicated Reading Time
12. Sourcing Reliable Information of Environment Conservation Journal
- Fact-Checking eBook Content of Environment Conservation Journal
 - Distinguishing Credible Sources
13. Promoting Lifelong Learning
- Utilizing eBooks for Skill Development

- Exploring Educational eBooks
14. Embracing eBook Trends
- Integration of Multimedia Elements
 - Interactive and Gamified eBooks

Environment Conservation Journal Introduction

In this digital age, the convenience of accessing information at our fingertips has become a necessity. Whether its research papers, eBooks, or user manuals, PDF files have become the preferred format for sharing and reading documents. However, the cost associated with purchasing PDF files can sometimes be a barrier for many individuals and organizations. Thankfully, there are numerous websites and platforms that allow users to download free PDF files legally. In this article, we will explore some of the best platforms to download free PDFs. One of the most popular platforms to download free PDF files is Project Gutenberg. This online library offers over 60,000 free eBooks that are in the public domain. From classic literature to historical documents, Project Gutenberg provides a wide range of PDF files that can be downloaded and enjoyed on various devices. The website is user-friendly and allows users to search for specific titles or browse through different categories. Another reliable platform for downloading Environment Conservation Journal free PDF files is Open Library. With its vast collection of over 1 million eBooks, Open Library has something for every reader. The website offers a seamless experience by providing options to borrow or download PDF files. Users simply need to create a free account to access this treasure trove of knowledge. Open Library also allows users to contribute by uploading and sharing their own PDF files, making it a collaborative platform for book enthusiasts. For those interested in academic resources, there are websites dedicated to providing free PDFs of research papers and scientific articles. One such website is Academia.edu, which allows researchers and scholars to share their work with a global audience. Users can download PDF files of research papers, theses, and dissertations covering a wide range of subjects. Academia.edu also provides a platform for discussions and networking within the academic community. When it comes to downloading Environment Conservation Journal free PDF files of magazines, brochures, and catalogs, Issuu is a popular choice. This digital publishing platform hosts a vast collection of publications from around the world. Users can search for specific titles or explore various categories and genres. Issuu offers a seamless reading experience with its user-friendly interface and allows users to download PDF files for offline reading. Apart from dedicated platforms, search engines also play a crucial role in finding free PDF files. Google, for instance, has an advanced search feature that allows users to filter results by file type. By specifying the file type as "PDF," users can find websites that offer free PDF downloads on a specific topic. While downloading Environment Conservation Journal free PDF files is convenient, its important to note that copyright laws must be respected. Always ensure that the PDF files you download are

legally available for free. Many authors and publishers voluntarily provide free PDF versions of their work, but its essential to be cautious and verify the authenticity of the source before downloading Environment Conservation Journal. In conclusion, the internet offers numerous platforms and websites that allow users to download free PDF files legally. Whether its classic literature, research papers, or magazines, there is something for everyone. The platforms mentioned in this article, such as Project Gutenberg, Open Library, Academia.edu, and Issuu, provide access to a vast collection of PDF files. However, users should always be cautious and verify the legality of the source before downloading Environment Conservation Journal any PDF files. With these platforms, the world of PDF downloads is just a click away.

FAQs About Environment Conservation Journal Books

What is a Environment Conservation Journal PDF? A PDF (Portable Document Format) is a file format developed by Adobe that preserves the layout and formatting of a document, regardless of the software, hardware, or operating system used to view or print it. **How do I create a Environment Conservation Journal PDF?** There are several ways to create a PDF: Use software like Adobe Acrobat, Microsoft Word, or Google Docs, which often have built-in PDF creation tools. Print to PDF: Many applications and operating systems have a "Print to PDF" option that allows you to save a document as a PDF file instead of printing it on paper. Online converters: There are various online tools that can convert different file types to PDF. **How do I edit a Environment Conservation Journal PDF?** Editing a PDF can be done with software like Adobe Acrobat, which allows direct editing of text, images, and other elements within the PDF. Some free tools, like PDFescape or Smallpdf, also offer basic editing capabilities. **How do I convert a Environment Conservation Journal PDF to another file format?** There are multiple ways to convert a PDF to another format: Use online converters like Smallpdf, Zamzar, or Adobe Acrobats export feature to convert PDFs to formats like Word, Excel, JPEG, etc. Software like Adobe Acrobat, Microsoft Word, or other PDF editors may have options to export or save PDFs in different formats. **How do I password-protect a Environment Conservation Journal PDF?** Most PDF editing software allows you to add password protection. In Adobe Acrobat, for instance, you can go to "File" -> "Properties" -> "Security" to set a password to restrict access or editing capabilities. Are there any free alternatives to Adobe Acrobat for working with PDFs? Yes, there are many free alternatives for working with PDFs, such as: LibreOffice: Offers PDF editing features. PDFsam: Allows splitting, merging, and editing PDFs. Foxit Reader: Provides basic PDF viewing and editing capabilities. How do I compress a PDF file? You can use online tools like Smallpdf, ILovePDF, or desktop software like Adobe Acrobat to compress PDF files without significant quality loss. Compression reduces the file size, making it easier to share and download. Can I fill out forms in a PDF file? Yes, most PDF viewers/editors like Adobe Acrobat, Preview (on Mac), or various online tools allow you to fill out forms in PDF files by

selecting text fields and entering information. Are there any restrictions when working with PDFs? Some PDFs might have restrictions set by their creator, such as password protection, editing restrictions, or print restrictions. Breaking these restrictions might require specific software or tools, which may or may not be legal depending on the circumstances and local laws.

Find Environment Conservation Journal :

[revit mep 2014 user guide](#)

[revue technique kangoo gratuit](#)

[richard daft leadership experience 6th edition](#)

[resumen de los ojos de mi princesa ensayos gratis 1 25](#)

[s620 introduction to statistical theory homework 4](#)

[robotics for engineers by yoram koren](#)

[sap business objects web intelligence](#)

[sample donation request letter sports team](#)

sage handbook of social network analysis

sage erp x3 finance sage

resetting additive ecu peugeot 807

[running empty overcome childhood emotional](#)

respiratory physiology the essentials 9th edition

retold by margaret tarner macmillan education ebookstore

~~risks and challenges in medical tourism understanding the global market for health services~~

Environment Conservation Journal :

download geo epoche 97 2019 der kolonialismus yumpu - May 31 2022

web download geo epoche 97 2019 der kolonialismus

geo epoche geo epoche 97 2019 der - May 11 2023

web sep 1 2019 sehr umfassende geschichte und viele verschiedene perspektiven nur die wirkungen des kolonialismus auf die heutige zeit hätten viel mehr raum einnehmen

geo epoche 97 2019 der kolonialismus german schaper - Jul 13 2023

web geo epoche über die geschichte des kolonialismus und dessen folgen es ist das vielleicht anmaßendste schriftstück der geschichte im vertrag von tordesillas

geo epoche 97 2019 der kolonialismus geo epoche - Nov 05 2022

web der kolonialismus prolog die macht der fremden herren frühe fotos zeigen den alltag europäischer fremdherrschaft 6 karten europas ausgreifen auf andere kontinente

ausbreitung des kolonialismus afrika bpb de - Dec 26 2021

geo epoche nr 97 vorschau der kolonialismus geo - Jun 12 2023

web geo epoche geo epoche 97 2019 der kolonialismus das magazin für geschichte schaper michael schaper michael isbn 9783652008518 kostenloser versand für

geo epoche 97 2019 der kolonialismus pdf uniport edu - Apr 29 2022

web abebooks com geo epoche 97 2019 der kolonialismus befriedigend good durchschnittlich erhaltenes buch bzw schutzumschlag mit gebrauchsspuren aber

chronologie zur deutschen kolonialgeschichte bpb de - Nov 24 2021

geo epoche nr 97 der kolonialismus geo - Aug 14 2023

web geo epoche 97 2019 der kolonialismus german schaper michael amazon com tr kitap

download geo epoche 97 2019 der kolonialismus yumpu - Mar 29 2022

web jul 28 2023 this online broadcast geo epoche 97 2019 der kolonialismus can be one of the options to accompany you similar to having additional time it will not waste your

pdf geo epoche 97 2019 der kolonialismus full yumpu - Aug 02 2022

web aug 4 2020 kolonialismus simple step to read and download 1 create a free account 2 choose from our vast selection of ebook and pdf 3 please see if you are

geo epoche 97 2019 der kolonialismus amazon de - Feb 08 2023

web geo epoche 97 2019 der kolonialismus die welt im griff europas ebook redaktion geo epoche amazon de bücher

geo epoche 97 2019 der kolonialismus john s library tinycat - Sep 03 2022

web aktuelle magazine über pdf geo epoche 97 2019 lesen und zahlreiche weitere magazine auf yumpu com entdecken de english deutsch français español português

geo epoche 97 2019 bestellen - Jan 07 2023

web jetzt als ebook herunterladen mit ihrem tablet oder ebook reader lesen geo epoche 97 2019 der kolonialismus geo

epoche bd 97 von geo epoche redaktion

geo epoche 97 2019 der kolonialismus goodreads - Mar 09 2023

web 13 50 inkl mwst zzgl versand in den warenkorb geo epoche 97 2019 der kolonialismus die welt im griff europas das blutige erbe von christoph kolumbus

geo epoche 97 2019 der kolonialismus die welt im griff - Dec 06 2022

web wie es der historiker jürgen osterhammel formuliert hat denn es gab nicht den kolonialismus vielmehr zeigte er sich in vielen formen und facetten

pdf geo epoche 97 2019 der kolonialismus full yumpu - Jul 01 2022

web may 15 2023 geo epoche 97 2019 der kolonialismus geo epoche redaktion 2019 06 11 liebe leserin lieber leser die herrschaft die europäer ab etwa 1500

geo epoche 97 2019 der kolonialismus by geo epoche - Feb 25 2022

web 21 05 2005 11 minuten zu lesen die ausbreitung des kolonialismus ab mitte des 19 jahrhunderts in afrika vorwiegend durch die europäer führte dort zu einem

geo epoche 97 2019 der kolonialismus pdf uniport edu - Jan 27 2022

web 1896 1902 erste deutsche kolonialausstellung im treptower park in berlin etwa 100 afrikanische vertragsarbeiter aus allen deutschen kolonien sind anwesend 1896

geo epoche 97 2019 der kolonialismus isbn - Oct 04 2022

web aktuelle magazine über 97 2019 der kolonialismus lesen und zahlreiche weitere magazine auf yumpu com entdecken

geo epoche geo epoche 97 2019 der kolonialismus das - Apr 10 2023

web geo epoche 97 2019 der kolonialismus geo epoche isbn 4194875512006 kostenloser versand für alle bücher mit versand und verkauf duch amazon

design and implementation of quality information management - Jan 28 2022

web apr 28 2022 for example technologies such as continuous acquisition and life cycle support cals and project information management system pims have been

civil engineering noc principles of construction management - Mar 10 2023

web 4 lecture 4 illustrative examples for evaluation of bids based on different schemes download 5 lecture 5 resource management in construction projects download

pdf construction technology safety management under - Feb 26 2022

web jan 1 2022 construction technology safety management under the background of bim and information system modeling cc by 4 0 authors yang liu abstract and figures

management information systems mis - Oct 25 2021

web lecture 10 management information systems what are they 1 definition a management information system is an integrated user machine system for

lecture 5 construction management information system detail - Apr 11 2023

web introduction to queries 10 in general a query is a form of questioning in a line of inquiry and is used for communication with database by using queries selective set of data from to

information systems in construction projects - Feb 09 2023

web information systems in construction projects management istanbul technical university institute of science and technology building

lecture 4 construction management information system - Aug 15 2023

web introduction 4 development phases of an mis system recognize and document the current system analyze the system and address the gaps conceptual design of the system

lecture 3 construction management information system system - Jun 13 2023

web 4 mis development phases recognize and document the current system analyze the system and address the gaps conceptual design of the system detail design implement

lecture 4 construction management information system - Jul 14 2023

web sep 2 2020 lecture 4 construction management information system system recognition and analysis department of civil engineering sharif university of

lecture4constructionmanagementinformationsystem copy - Sep 23 2021

web getting this info acquire the lecture4constructionmanagementinformationsystem join that we pay for here and check out the link you could buy guide

lecture 2 construction management information system - May 12 2023

web the four stages of data processing input data is collected and entered into computer process data is manipulated into information using mathematical statistical and other

information systems in construction and property industries - Aug 03 2022

web mis in cpi may support the following functions communication collaboration project and portfolio management control monitoring tracking of construction activity control and

information management systems on construction projects case - Jun 01 2022

web sep 1 2006 purpose this paper aims to present the findings from research that sought to evaluate the construction industry s approach to information management at the

management information systems mis general introduction - Mar 30 2022

web builders of information processing systems developed a more comprehensive vision of what computers could do for organizations this vision was termed as management

information management systems on construction projects case - Sep 04 2022

web sep 1 2006 this paper aims to present the findings from research that sought to evaluate the construction industry s approach to information management at the project level

pdf construction information management the role of fourth - Oct 05 2022

web jan 1 2022 construction information management is the act of collecting storing distributing archiving and deleting or destroying information to facilitate smooth running

challenges confronting construction information management - Nov 25 2021

web dec 19 2022 the term construction information management system refers to a piece of interactive software or a hardware management system used in the construction

lecture 4 construction management information system pdf - Apr 30 2022

web ignite change such may be the essence of the book lecture 4 construction management information system pdf a literary masterpiece that delves deep to the significance of

4d construction management system based on ifc standard - Jul 02 2022

web jun 1 2005 the model and the system provide new theory approach and method for engineering information management during the whole construction phases it may

it in construction management ItÜ proje yönetim - Nov 06 2022

web graduates of it based construction management program are awarded by msc degree courses and seminars are given by the academicians of itu as well as academicians

project management information systems for - Jan 08 2023

web abstract this paper explores future requirements of project management information systems pmis for professional construction management cm firms current

project management information systems for construction - Dec 27 2021

web jun 29 2011 applicable and well integrated management information system is mandatory for any construction project and any business challenge carried out in the

building information modelling bim - Dec 07 2022

web construction managers library erasmus 2015 1 pl01 ka202 016454 3 this manual is part of the construction managers library a set of books related to the

bse exam question paper 2013 lms duhs edu - Feb 28 2023

web bse exam question paper 2013 bse exam question paper 2013 rrb ntpc exam final cut off for all the exams combined oil india limited a navratna company board of

2015 2023 bse odisha 10th question paper important pdf pro - Jul 24 2022

web bse odisha 10th question paper 2013 how to download bse odisha 10th question papers for students is one of the most important things you must do for your

bse exam question paper 2013 pdf - Sep 06 2023

web bse exam question paper 2013 pdf author alton subject bse exam question paper 2013 pdf keywords get instant access to ebook bse exam question paper

bse exam question paper 2013 online kptm edu my - Aug 25 2022

web sep 3 2023 paper download pdf class 5 6 exam level lecture to oxford farming conference 3 january 2013 rrb ntpc exam final cut off for all the exams

post basic b sc nursing last 10 years 2012 2022 question - Sep 25 2022

web feb 21 2020 post basic b sc nursing pbb sc nursing 2022 2021 2020 2019 2018 2017 2016 2015 2014 2013 2012 2011 and 2010 question papers 1st year and 2nd

written examination bsecho - Aug 05 2023

web examination fees the examination fee is 275 00 which covers the written exam and practical assessment excluding practical booking fee the fee will be paid through

cbse class 12 business studies question paper 2013 with - Feb 16 2022

web oct 29 2023 neet syllabus download pdf free download a cbse class 12 business studies question paper 2013 with solutions in pdf format prepared by subject experts

bseorissa in sample question paper hsc exam 2013 bse - Jun 22 2022

web aug 18 2010 bseorissa in sample question paper hsc exam 2013 bse odisha board of secondary education results 1 to 18 of 18 december 4th 2012 11 37 am post

odisha bse sample papers question papers 2024 pdf - May 22 2022

web aug 31 2023 odisha bse sample papers the odisha board releases bse odisha sample papers for the students to be able to practise from them on its official website

bse exam question paper 2013 videoconvert385 caveon com - Dec 29 2022

web bse exam question paper 2013 3 3 sol bsc 1st year chemistry 1st pepar 2019 newly inserted chapters in class x textbooks download of bse odisha 2020 study

bse exam question paper 2013 pdf bjoern baumeier copy - Nov 15 2021

web may 31 2023 bse exam question paper 2013 pdf yeah reviewing a book bse exam question paper 2013 pdf could add your close contacts listings this is just one of the

bse exam question paper 2013 pdf 2023 gestudy byu edu - Jun 03 2023

web jun 23 2023 bse exam question paper 2013 pdf when somebody should go to the ebook stores search creation by shop shelf by shelf it is truly problematic this is why

otet previous year questions 2022 2021 2019 2017 2016 free - Apr 20 2022

web dec 19 2018 otet previous year questions free 2022 2021 2019 2017 2016 2015 odisha teacher eligibility test otet is an examination for all odisha candidates both

bse exam question paper 2013 virtualevents straumann com - Nov 27 2022

web aug 25 2023 bse exam question paper 2013 jntuk b tech 1 2 sem r16 regular question papers april rrb ntpc exam final cut off for all the exams combined

bse exam question paper 2013 help environment harvard edu - Apr 01 2023

web in some cases you likewise realize not discover the publication bse exam question paper 2013 that you are looking for it will extremely squander the time however below in the

bse exam question paper 2013 shaul io - Oct 07 2023

web like this bse exam question paper 2013 but end up in malicious downloads rather than reading a good book with a cup of coffee in the afternoon instead they juggled with some

bse exam question paper 2013 help environment harvard edu - Dec 17 2021

web getting the books bse exam question paper 2013 now is not type of challenging means you could not forlorn going bearing in mind ebook collection or library or borrowing from

bse exam question paper 2013 pdf pdf gccu eu - Jul 04 2023

web mar 24 2023 recognizing the mannerism ways to get this ebook bse exam question paper 2013 pdf is additionally useful you have remained in right site to start getting this

question paper unit 4 6bs04 june 2013 pearson - May 02 2023

web jun 20 2013 candidates are expected to be familiar with evidence a to i for this paper before the examination advice tt read each question carefully before you start to

9th class half yearly exam 100 real math question paper bse - Oct 27 2022

web 9th class half yearly exam 100 real math question paper bse study studygram education student studymotivation motivation studying school universit

cbse class 12 question papers 2013 with solutions pdf - Jan 18 2022

web sep 4 2023 pooja sharma cbse class 12 previous year question papers 2013 for science stream subjects can be downloaded from the links given below students can

bse exam question paper 2013 api mobomo - Jan 30 2023

web question paper i class 4 half yearly question paper 2023 edition english class 4 sa 1 english questions paper 2023 bse exams bse exam

cbse class 10 social science previous year question paper - Mar 20 2022

web cbse class 10 social science previous year question paper 2013 helps students to prepare for the board exam by solving the papers students get an overview of the real