

Journal of Plant Science and Phytopathology

Volume - 4, Issue - 2

Review Article **Published Date:-2020-08-14 00:00:00**

[Antiviral and Antinematodal potentials of chitosan: Review](#)

For many years, chemical pesticides have been performed to control different pests and diseases and this may be due to their broad spectrum of action, easy of application and the relatively low cost. But these chemicals have environmental risks, thus alternative control agents are needed. Chitosan is one of the novel suggested solutions to reduce the economic losses associated with chemical pesticides. Chitosan is naturally-occurring compound, as well as safe and biodegradable which obtained from certain natural sources. Chitosan have unique properties which help to control viruses, bacteria, fungi, insects, plant nematodes and other pests locally and systemically.

Review Article **Published Date:-2020-06-18 00:00:00**

[A Perspective on therapeutic potential of weeds](#)

Nature gives us a diverse plethora of floral wealth. Weeds have been recognized as invasive plant by most of scholars in today's world with extraordinary travel history. They are considered to be noxious for adjoining plant species and also as economic hazard. Weeds inhabited in almost entire biomes and have capability to survive in harsh conditions of environment thereby become source of inspiration for finding novel phytoconstituents. Weeds play a significant role in absorbing harmful micro pollutants that are affecting ecosystem adversely. There are so many examples like canna lily, bladder wort, coltsfoot, giant buttercup etc. playing crucial part in sustaining environment. Different isolation and characterization approaches like high pressure liquid chromatography, gas chromatography, ion exchange chromatography, nuclear magnetic resonance, mass spectroscopy etc. have also been fetched for obtaining novel constituents from weeds. The main aim of this review is to analyze the therapeutic potential of weeds established in New Zealand and effort to unfold the wide scope of its applications in biological sciences. Upon exploration of various authorized databases available it has been found that weeds not only are the reservoir of complex phytoconstituents exhibiting diverse array of pharmacological activities but also provide potential role in environment phytoremediation. Phytoconstituents reported in weeds have immense potential as a drug targets for different pathological conditions. This review focuses on the literature of therapeutic potential of weeds established in New Zealand and tried to unveil the hidden side of these unwanted plants called weeds.

Research Article **Published Date:-2020-05-07 00:00:00**

[Gene polymorphisms CVPDr on some plants citrus in Bali Island](#)

Citrus Vein Phloem Degeneration (CVPD) is the main disease of citrus plants in Indonesia. This disease is caused by Gram negative bacteria, *Candidatus Liberibacter asiaticus*. Almost all citrus plants are susceptible to this disease and only a few citrus plants such as seedless lime (*Citrus aurantiifolia* var. Seedles) and kinkit citrus (*Triphacia trifoliata*) are tolerant. Both of these citrus plants store DNA fragments of CVPDr which are considered as tolerant factors (841 bp). However, this study found that CVPDr DNA fragments were also found in citrus plants susceptible to CVPD disease. This research aims to study DNA polymorphisms from CVPDr DNA fragments in citrus plants on the island of Bali. The PCR test showed *T. trifoliata* and *C. aurantiifolia* that are resistant to CVPD and Phylogenically are in the same group as *C. nobilis* var Buleleng, *C. reticulata* var. Slayer Buleleng, and *C. amblicarpa*. On the other hand, citrus plants susceptible to CVPD are in a different group. There are two types of citrus plants not containing CVPDr DNA fragments, namely *C. nobilis* var. Petang and *M. paniculata* L. These results indicate that the CVPDr DNA fragment polymorphism is a factor tolerant to CVPD disease.

Mini Review **Published Date:-2020-05-05 00:00:00**

[Incidence and disease control of Zucchini yellow mosaic potyvirus](#)

Zucchini yellow mosaic potyvirus (ZYMV) was first identified in northern Italy. It likes other species of the family Potyviridae. ZYMV has been recorded in many countries since 1981. The efficient intercontinental spread of the virus can be explained by international trading of infected seeds. Since coat protein (CP) analysis has become a primary method for taxonomic assignment of potyviruses the aims were to characterize this genomic region of ZYMV originating from virus-infected cucurbitaceous seedlings. Virus infection in cucurbits is typically associated with mosaic symptoms on leaves and lumpy, distorted fruit. The range of symptoms produced by each virus can overlap and plants are commonly infected by more than one virus at once. The viruses are spread by many species of aphids moving through or within a crop. Control options include: destroying old cucurbit crops as soon as harvesting is completed destroying weeds and volunteer cucurbits, within and around crops as these harbor the viruses and/or the aphids separating new crops from maturing crops as these will have high levels of virus infection avoiding overlapping crops of cucurbits.
