methods were used to analyse the powdered leaf materials. Chemical
analytical (O-PLS) was used to develop a predictive model for
mangiferin. Extracts of the mango leaves were added to fruit juices
and the stability of mangiferin determined according to time, light and
pH. The levels of mangiferin in mango were compared to those found
in honeycomb teas. Mangiferin levels found in a leaf infusion of mango
indicated that mango leaves may have more health benefits than honey-

Verbascone, a phenylethanoid glycoside, displays diverse biological
activities. The antifungal activities of polar extracts of Lippia species
against *Penicillium digitatum*, a common pathogen of citrus, was
attributed to the presence of verbascone.1 Partial purification of such plant
extracts to increase the verbascone content could provide natural myco-
obiotics for postharvest control of pathogens on fruit. Verbascone was
extracted from dried *Lippia wilmsii* H.Pearson plant material using
aqueous methanol. The extracts were purified using silica gel column
chromatography and the verbascone concentrations were compared to
that obtained by countercurrent chromatography (CCC). The crude ex-
tract contained 4.8 g/l verbascone, corresponding to 12.5% of the ex-
tract. After column chromatography, the verbascone content of the purified
extract was substantially increased, but was lower than that
obtained by CCC (40.8%). High performance liquid chromatography
was used for the analyses of the target compound. The widespread
vander weed *Lantana camara* L., was investigated as an alternative source of
the compound. Five specimens of *L. camara* from 13 populations in
South Africa were analysed by HPLC. Both intra- and interpopulation
variability was observed in the verbascone content. Combinations of
flowers and leaves from *L. camara* could serve as a good source of
verbascone. Several stability tests were conducted to evaluate the stability
of the compound under different conditions. The shelf life stability
study proved that the compound is stable in a dry form when stored in
the dark, but decomposes rapidly when exposed to light. Verbascone
also proved to be reasonably stable under steam distillation conditions

Inhibitory Effect of Crude Aqueous *Bucca
amarissima* Extract on the Growth Profile of
Oral *Candida*

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The prevalence of oral *Candida* infections has increased, due to
immunosuppressive effect of antifungal agents on resistant hosts.1,2
Growth rate is a key attribute of virulence among infectious microorgan-
isms including *Candida* species. The aim of this study was to evaluate
the growth inhibitory effect of *Bucca amarissima* (Lour.) Murr. leaves extract
based on changes in the pattern of growth profile of *Candida* sp.
*Candida albicans*, *Candida tropicalis* and *Candida dubliniensis* were
used in this study. Crude extract of *B. amarissima* was prepared and the
minimal inhibitory concentrations (MICs) towards *Candida* sp. were
determined. The growth responses were recorded based on changes in
the doubling time (g-values) and specific growth rates (µ-values).
The values in the presence of extract were computed as percentage in the optical
density (OD) relative to the total cells suspension in the absence of
tact. 0.12% w/v chlorhexidine (CHX)-containing mouth rinse and sterile
distilled water were used as controls. *Candida tropicalis* was found to have
the highest growth rates indicating high bioactivities and reproducibilities.
*C. dubliniensis* and *C. tropicalis* showed the highest reduction of µ-
values at a minimal concentration of 87.0% and 57.2%, respectively. At
higher concentration (6 mg/mL), the extract exhibited significant re-
duction towards the growth (p < 0.05). Also, was able to reduce the µ-
values of all *Candida* strains with more than 90% reduction. The extract

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Plants known as “Node-to-dog” (*Heteropterys
aphrodisiaca* O. Mach. (Malpighiaceae) and its
medicinal use in southwestern Mato Grosso,
Brazil)

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There are several species of medicinal plants known as “Node-to-dog.”
The most used is the *Heteropterys aphrodisiaca* O. Mach. (Malpighiaceae).
We conducted field and laboratory studies and also review on popular
usage, occurrence and bioactivity of *H. aphrodisiaca* in south-
western Mato Grosso (MT-sw), Brazil from 2003 – 2005. The plant
occurs in savannah and field areas. It is widely used as an aphrodisiac by
local communities. Its beautiful flowers are ornamental, yellow, often
visited by wild bees. The plant has long, expanded and nodulated roots,
hence the name of “node-to-dog.” It spreads easily by seeds, adapts well
in adverse environments and resists fires, regenerating after. Experi-
ments on more appropriate systems of cultivation, developed in Cäceres
(MT-sw), revealed that the species adapts equally well in monon and
cultivation. The root of the adult plant is used in folk medicine to treat
sexually related problems, sexual problems, and is physical
invigorating. The root is macerated in wine for consumption as an appe-
tizer. There are substances in the *H. aphrodisiaca* promising to treat
fatigue, memory loss and Alzheimer’s disease. Phytochemical analysis
revealed the presence, in root extracts, of polyphenols, tannins, alkal-
oids; cardiotonic, aromatic and flavonoid glycosides; and of saponins.
In MT-sw it is a commonly used medicinal plant and the roots are sold
in boxes. Acknowledgements: Fapemig – financial support, and for UN-
EMAT – institutional support; for the collaborators colleagues from the
research group FLOBIO – (Plants carrying Bioactive substances)

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Plant known as “Sangra d’água” (*Croton urucurana* Baill. (Euphorbiaceae) and its
medicinal use in southwestern of Mato Grosso state,
Brazil)

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“Sangra d’água” is a medicinal tree plant (genus Croton). There are sev-
eral species, including: *C. urucurana* Baill., *C. salutaris* Casar., *C. lechleri* Müll.Arg., *C. planostigma* Klotzch. (*Croton urucurana* (Euphorbiaceae) is the
best known. We conducted “filed, lab studies” and a literature re-
view on popular usage, occurrence and bioactivity of *C. urucurana*
in southwestern Mato Grosso (MT-sw), Brazil, 2003 – 2007. In MT-sw
it grows spontaneously and quickly in watercourses margins. The addi-
tional light plant exposure accelerated its reproduction. The inflores-
cence releases dust that causes allergies-skin irritation. In MT-sw it
is used to treat female (discharge, sores, inflammation, cyst) and
male genital disorders (prostate); cancer, gastritis, intestinal- stomach ulcers,
bruises, infections, hemorrhoids, pain-in-legs, blood-purifying. In
other regions of Brazil, it is also used as anti-hemorrhagic, anti-inflammatory,
anti-septic, anti-viral, healing, and haemostatic. Obtaining bark and tree
sap should be done in the morning and opposite to the rising sun.
The water from boiling the bark is used for bathing. Other research on *C.
urucurana* latex discloses that the healing action is attributed to alkaloid
taspine; in mice it develops peripheral analgesic activity; in rats, the
ingestion was highly toxic, why should it have external use only. The
users of these plants should make sure the proper procedures have been
taken, consulting qualified professionals to target efficacy and avoid-
ing side effects. In Cäceres (MT-sw), bark and sap are sold by healers,
whose expertise is primarily inherited from their ancestors. From this
plant the honeybees extract resin to produce propolis. It also has other
uses within the conception of sustainable development. Acknowledge-