



Dates and their different uses in food in some of south-west oases of Algeria: Touat, Gourara and Tidikelt

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Abstract

Dates are considered as the most important food in the south-west oases of Algeria, particularly the area of Touat, Gourara and Tidikelt.

The Dates palm (Phoenix dactylifera) has known some kind of specificity in its different life phases, compared to all the rest of oases cultivar plants. It is tanks to that people could settle down. They built their houses; they ate from its various fruits. A study within a ministerial research project about the dates palm variety in the previous areas has shown that there are 400 spices of dates*. Thanks to this diversification types, members of this community were able to acquire experience in the field of the uses of date in their nutritional behavior, since date is available throughout the year. Harvest begins for the early variety in June. As for the late variety it begins in October. We find in this diversification, wet date, semi-wet date and dry date. For each

of variety, there is a particular method of its use.

Despite the fact dates palm could suffer from diseases in this part of Algeria such as Boufarwa (Oligonychus afrasiaticus), El jarab el abiad (Parlaoria blanchardi) and Bayod* (Fusarium oxysporum albedinis), the community of this area are still preserving the heritage of the ancestors, concerning the date palm in general and date in particular, sustainable of food.

Specifically that is the one present in all oasis occasions.

The aim of the current study was to examine the different methods of nutritional ate uses, which have been adopted since old times to the current days all across the area of Touat, Gourara and Tidikelt, by its inhabitants. Also to show the local skills sustained across the generations.

Key Word:

Dates variety and their uses; Adrar Areas; Nutritional behavior; Sustained local skills.

Introduction

Palm tree is considered as the symbol of oasis in the southern region of Algeria. It has had great role in people's lives, both as individuals and as a society. People get their food even medicine from it. Most of all, it has entered even into people's social life. History has recorded it amongst of heritage civilization, which characterized TOUAT (Adrar) area. It is included in our traditions and customs. Through this Ethnobotanical study, which touches all relationships between plants and human beings, we describe some of the different uses of dates, the local craftsmanship and skills in this industry.

Methods and Tools

For the sake of studying date's nutritional uses in the region (Touat, Gourara, Tidikelt), we have used a desk research and questionnaire. Besides this, we have interviewed the peasants and used our personal observations. Also, there had been visits to the fields of palms and collecting information about the way palms (both male and female), about the way palms are made sustain bleaters and methods.

Results, discussion

1- The Area of Study:

Adrar is known for four major geographical areas:

1- Gourara region: located municipalities' units, which border the big marsh of Timimoun. These are: Ksar Ouled Kadour, Ouled Said, Timimoun, Ouled Aissa, Talmin, Charwil, Mtarfa, Daldoul, and Ouaghrout. Its area is about 65203km².

2- Central Touat: It is composed of twelve municipalities, which are located along Messaoud valley. These are: Tsabit, Sebaa, Bouda,

Adrar, Timi, Tametit, Fonoghil, Tamset, Zaouia Kouta, Inzegmir, Sali, and Regan.

3- East South Region: Tidikelt which is composed of four municipalities: Aulef, Timoukten, Akebli and Tit. Its area is about 24536 km².

4- West South Region: Tanzouft which is composed of two municipalities: Bourj Baji Moukhtar, and Timyawine. Its area is about 132579 km².

The area is crossed by many valleys: Imguden which end at Gourara, the Messaoud valley which ends at Touat, and Great valley, which ends at Tidikelt. Adrar is characterized with its seasonal winds such as sirocco, which is a hot wind known locally as Arifi or Sahid.

Vegetation: It is essentially composed of oasises of palms (more than 24 980 hectares), thistle, and herbs and so on. The latter get broadly under the following types of plants.

These plants are classified in relation to the types of land: such as sand, clay, or salt. Also, they adapt to the nature of climate such: (Aristada pungens), (Retam Retama), (Carnilaca moncatha), (Zygophyllum album), (Acacia raddiana), (Tamarx sp) (Salsola foetida), (Tamarx sp) ...

Land availability: a total agricultural area 338.000 ha.

Utilized agricultural area: 35.000 ha. An irrigated area: 27.200 ha.

Water Resources: Moreover, there is a huge amount of water in a layer that is close to the surface, particularly towards the axis of Adrar, Timimon, and Regan, because there are the "complex continental whose limits vary according to the regions and that one defines under the term of

continental insert"(Atlas; 2002, p38)

Number of drilled 559 of wich227 operate, number of wells drilled 6626. Active foggaras 1400**** (journal of agriculture and development; 2009)

Animals Resources: 347.000 heads of sheep, 95.500 heads of goats; 654 heads of cattle and 38.500 heads of camels.

2- Nutritional uses of dates:

There is a strong relationship between man in the area and palm tree. Men take care of irrigating and providing its soil with organic fertilizer. They are different ways of attending to it. Palm tree, on its part, provides various kinds of date, which are exploited by men in different way, such as for human nutrition as well as food for animals. Also, tools invented since time immemorial are still in use.

1- Different Phrases of date ripening in the Region:

Palm trees inflorescence (locally called Dokkar). Peasants start doing the process of pollination of palm trees annually. Simultaneously, they start uttering some religious prayers and blessing such as 'in the name of God' and "Peace upon the Prophet Mohamed". Dekkar and date contains oestrogen, oestrone, phosphorus, orginine, boron. These substances help in cases of impotence or the weakness of sperms. (Aroubi 2006). Also, it is used locally to stop bleeding. After weeks of sterilization, first signs of fruits emerge.

2- Types of dates and its uses:

a- Soft dates:

Prophets Mohamed PUH had his breakfast which consisted of dates before he prayed,(Abou Duaed). When date first ripens and the first amounts are harvested, peasants become happy and they exchange

types of dates. Families consume from the dates crops and they preserve the rest or sell it in the market. (Merzaia Blama; Zaki, 2007).

b- Semi-dry dates:

Many people of kssors preserve it in a special manner in bags of cloth. They do that in the following manner: Good date is separated from the bad (like the one which has shrivelled up).

After the boiled water is poured on it so that to purify it and preserve it from rotting. It is let for a while until it becomes soft.

* Preparation of Btana. "To make Btana first of all dates were cleaned up with fresh water to eliminate dust and other appeared dirty as the rest of insects and the bird excrement.

This step is repeated many times till enhancing soften dates. This operation was done in cleaned performed metallic container, sometimes the villagers use a hot water to soften drayed date then, dates were amalgamated and mixed for accelerate it softness. In the end of this stage, we obtain a paste of date which is usually piled up in proper plastic bag, or in linen bag or very originally into an old goat skin. The dates paste is piled by layers, between each layer a small pressure is established, this aim to homogenate dates repartition and the second objective is to exclude the residual air from the bag. On each layer of this paste it is dispersed a small amount of a grind mixture of aromatic dried plants as like as basil (*Ocinum basilicum L.*), juniper (*Juniperus communis L.*), rosemary (*Rosmarius officinalis L.*), wormwood (*Artemisia herba-alba L.*), the main role of this plants is to give an agreeable smell and taste to dates. After filling, bag is attached and closed hermetically.

A small exposure to sun helps to perform the quality of the paste which takes a good consistence. The period of sun exposure vary with the temperature (2 days in winter, mi-day in summer), the bag is periodically returned for exposing its two faces to sun. Then the bag is stocked in a dry place and away from insects and the stock destructors. After one month of preservation dates would be able for consumption (this period may take several months in some region depending to the habitant needs). (Bekhti, 2008).

Date is preserved thus for months and used when needed; for instance, when there is a shortage of date in the market or on feasts or other religious occasions such as Ramadan.

Varieties of dates suitable for this kind of preservation are: Tilmsou, Tazerzait, Masoudia, Takrbouchet, Ahrtane.

Some dishes such as Kaabouch, Rfis are prepared by the use of the Btana. They added to it Laklilla dray cheese and millet (*pennisetum glaucum*) grinded.

c- Dry Dates:

Uses of dry dates: Dry dates are purified and crashed by using a rock (schist) and another smaller one (pebbles).

After that, perianth and nuts are removed from dates. Next, date is ground in a big, wooden pestle made out of wood. Then it is blown through using a flat container made out of palm trees leaves. After that remaining dust is removed. Big particles of ground date are separated from smaller ones. After that Safouf, which is the name of the result of this process, is put in another container made also out of palm tree called Tadara.

Millet (*pennisetum glaucum*) flour and dry cheese are added to Sfouf.

After that, it becomes ready to be consumed throughout the year without undergoing any kind of rotting. Small particles of Sfouf are called Anghad.

Anghad: It is the powder that is obtained through grinding dates. It is given to babies as food, tranquilizer and something that gives them energy. It has been proven scientifically that it helps in the growth of children because it contains Phosphor, Calcium, which are important in building and strengthening bones and teeth. Anghad also; is used to prepare padding, and sauces of some popular local dishes such as bread of Kesra, bread of Redfa, andMardouf.

Azwa: It is the remnants of ground dates nuts, which is used as medicine for colic and a purifier of wounds.

d- Honey of Palms:

Falling palms honey is collected and mixed with the seeders of some herbs. The latter are Kamoune The latter are: (*Cuminum cyminum L.*) (*Carum carvi L.*), (*Nigella sativa L.*), They are mixed together and given to babies in cases of colic and gases.

Marissa: it is a mixture of date and water given to someone who has underwent thirst in the desert.

Conclusion

A date palm is a source of energy it is a first and the last food of people of desert the prophet Mohammed (PBUH) said (a house that has no dates is house of hungry) but we have to developed the system of conservation , we are able to benefit our ancient heritage.

References:

1-Merzaia BlamaA; Zaki A. An Ethnobotanical Study about Touat Region's Palms, The National

Table 1: Dates variety and their uses in the Touat, Gourara and Tidikelt.

Dates Variety	Preparation	Observation	Material added
Echekh mehammed	Btana/safouf	Begins Variety	dray cheese
El ferana	Btana/safouf	Begins Variety	<i>Juniperus communis</i> L.
Ba makhlof	Btana/safouf	Begins Variety	
El masoudia	Btana/safouf	Begins Variety	<i>Ocinum basilicum</i> L.
Agaz	Btana/safouf	Begins Variety	
Tigaza	Btana/safouf	Begins Variety	<i>Panicum miliaceum</i> L
Takarbouch	Btana/safouf	late variety	
Aramou	Btana/safouf	late variety	<i>Rosmarius officinalis</i>
Tinaser	Btana/safouf	late variety	
Tademam	Btana/safouf	late variety	
Achedakh	Btana/safouf	late variety	

Institute of Agricultural of Algeria Research review. N° 20. 2007.

2- Djerbi. M; 1983. Diseases of the date palm. Regional project for palm and dates research centre in the near east and North Africa. Baghdad. p 5 and 6.

3- Bakhti. A ; 2008, Évaluation de la méthode traditionnelle de conservation de dattes « Btana » et contribution à l'identification de sa microflore dominante. Memory of Magistrate. Université de Bechar.

4- Atlas of environment; Symbioses edition. 2002. Algeria. p 38. 34.

5 -Rapport of the agriculture and development N°10. 2009

Directorate of Agricultural Services of Wilaya of Adrar.

* Inventory, characterization and conservation cultivates of dates palm in the different zones phoenicols of South-west of Adrar area. INRAA .Station of the research of Adrar. Ministerial research project about the dates palm variety in

** Bayoud is incontestably the most serious cryptogamic disease of the date palm (phoenix dactylifera l.) it constitutes a veritable plague in the date growing areas of parts of north Africa and a threat to those countries still unharmed by it. Bayoud is an epiphytotic disease for which there is no known cure at the present time.

Bayoud was first observed in Morocco in Deraa valley, north of zagora, sometime before 1870.

Between 1920 and 1940 the map of bayoud foci expanded modestly. Two contaminations were particularly important, in Adrar and In Salah regions, affected repetitively in 1930 and 1941). (Djerbi; 1983)

****The foggaras are galleries under the surface of the desert, which serve as water pipes between the ground water and a palm grove...the foggaras seem to have been in use in the Algerian Sahara during the Middle Ages(IV-X century). They exist in the oases of the northern central and Western Sahara. We find them more precisely in the Touat (region of Adrar and Reggane), in the Gourara (region of Timimoun) and the Tidikelt (region of In Salah) (Atlas; 2002).

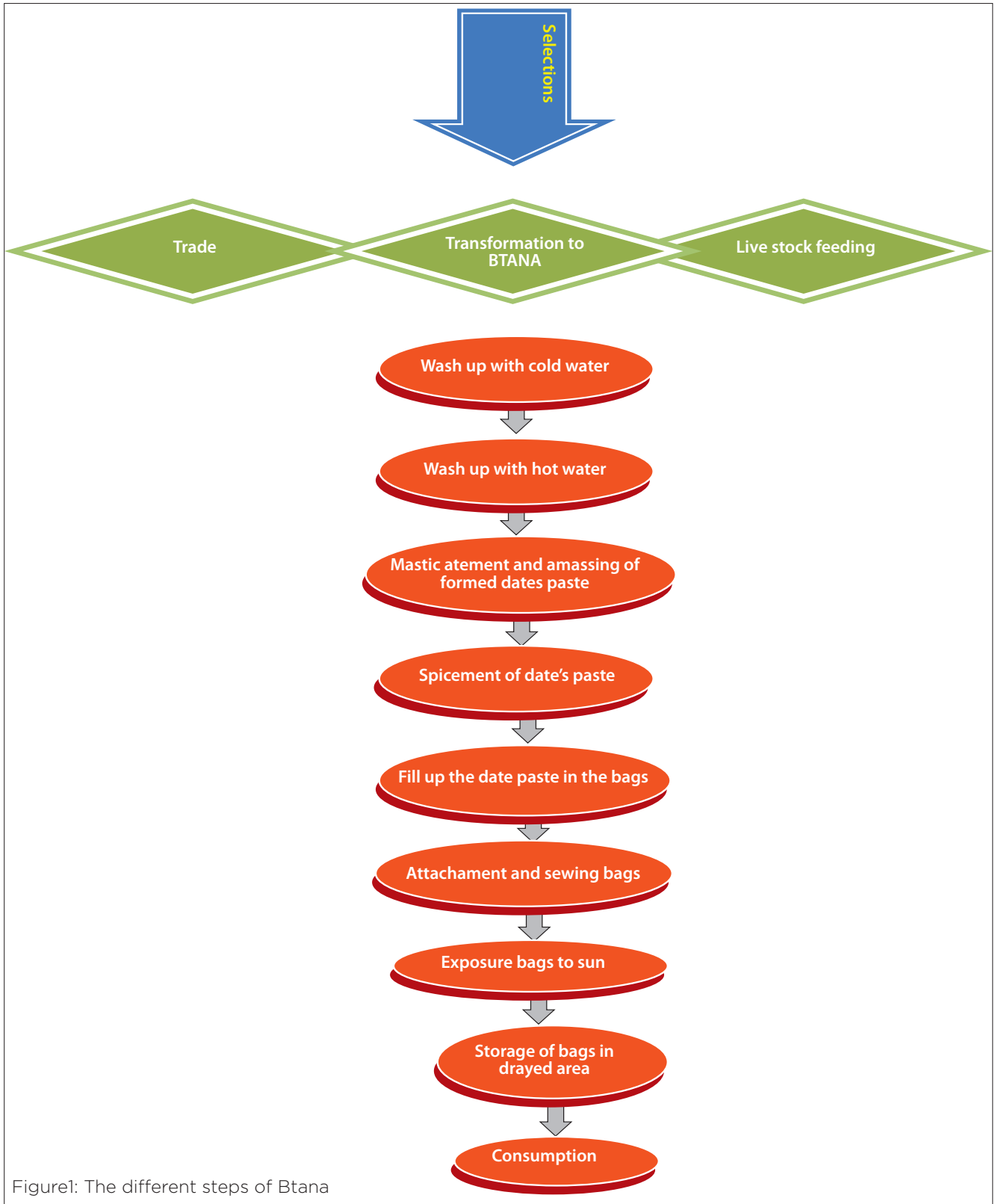


Figure1: The different steps of Btana

Drayed dates for livestock feeding



Btana in cottoned bag



Btana in plastic bag



Distributing Btana to welcome visitors in local popular festivities



Crushed dates named Saffoufe in traditional pot

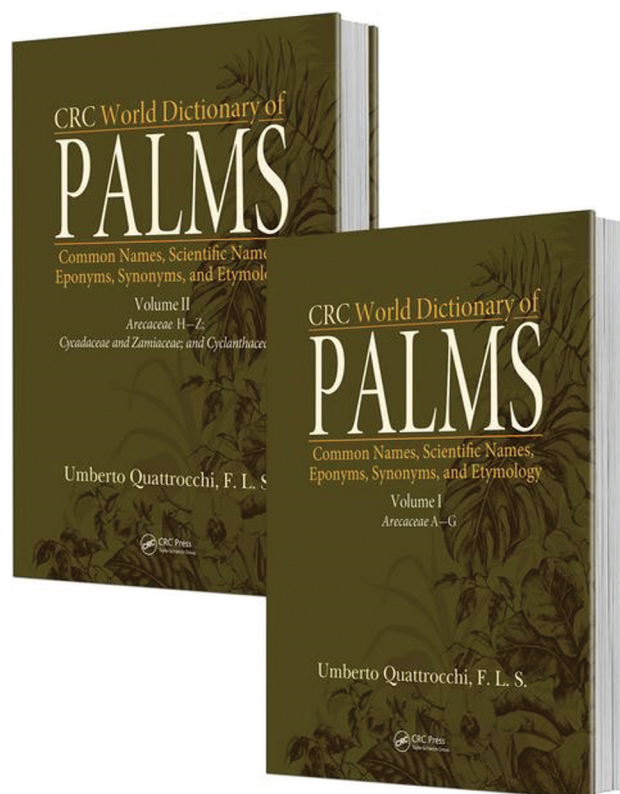


CRC World Dictionary of Palms

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Features

Introduction will explain the scope, coverage, and criteria for inclusion of genera and species

ORGANIZATION: Genus (botanical) name with authorities, common names, and etymology. Some entries will include the

number of species, geographic range, and a brief description.

Provides not only the accepted botanical names and common names, but also supplies vernacular names and orthographic variants

Presents data on eponymic individuals that will be thorough,

listing their most important professional works, positions, and literature references

Exhaustive bibliography serves as a departure point for more detailed research; possible inclusion of footnotes for key and/or controversial entries

Summary

From the Foreword

Umberto Quattrocchi has brought us some amazing and useful works through the various dictionaries that he has compiled. This time it is for two very important plant families the palms and the cycads that are synthesized here in these two volumes. Each entry is fascinating not just for the botany and full nomenclature of the plant species but for all the associated uses, folklore and interactions with other organisms. ...These entries are fascinating glimpses of natural history. ... Botanists, conservationists, ethnobotanists, anthropologists, geographers, bird watchers, naturalists, historians and those of many other disciplines will find these volumes a most valuable and useful resource. It is the sort of book that will be in frequent use in my library.

Professor Sir Ghillea Prance FRS, VMH, Former Director, Royal Botanic Gardens, Kew

Following the same format as Umberto Quattrocchi's highly praised and well-used previous works, The CRC World Dictionary of Palms: Common Names, Scientific Names, Eponyms, Synonyms, and Etymology brings together the vast and scattered literature on palms and cycads to provide better access to information on these economically important plants. Each genus and species has a detailed morphological description and includes a list of

synonyms and vernacular names in many languages.

Bibliographies accompany each entry, which are comprehensive, up-to-date and multi-lingual. The detailed information for every entry on habitats, economic uses, historical and biographical data, botanical exploration, and linguistics will be useful for any library involved with botany, herbal medicine, pharmacognosy, medicinal and natural product chemistry, ecology, ethnobotany, systematics, general plant science, agriculture or horticulture.

Umberto Quattrocchi is the author of the bestselling CRC World Dictionary of Plant Names, winner of the prestigious Hanbury Botanical Garden Award. His most recent multi-volume work, CRC World Dictionary of Medicinal and Poisonous Plants, received strong praise as being "... an unparalleled starting place—a tool of first resort for any thoughtful researcher. Quattrocchi and CRC have delivered a dictionary like no other, a learned finger pointing in the right direction."

John de la Parra, Northeastern University, Boston, Massachusetts, USA, from *Economic Botany*, Vol. 68, 2014

Content:

The two volumes contain entries listed in alphabetical order.

Volume I Arecaceae A - G

Volume II, Arecaceae H - Z; Cycadaceae and Zamiaceae; and Cyclanthaceae

Author Details:

Umberto Quattrocchi earned his first degree in political science from the University of Palermo. He followed this achievement with an M.D., specializing in obstetrics and gynecology. In 1992, he retired from the practice

of medicine to pursue his studies in botany across the world and to serve as a professor of botany at the University of Palermo. Highly prolific, Quattrocchi has numerous political and botanical books and articles to his credit, including those on plants and gardening that have been published in *Hortus* and *The Garden*. In 1997, he received the prestigious Hanbury Botanical Garden Award promoted by the Premio Grinzane Cavour for his book *Piante Rustiche Tropicali*. He received a second Hanbury Award for the bestselling CRC World Dictionary of Plant Names. Quattrocchi is a member of the International Dendrology Society, the Royal Horticultural Society, and the Botanical Society of America. He is an elected Fellow of the world-renowned Linnean Society.

Abstract

Over the years, Umberto Quattrocchi has made a name by providing very detailed, multiple volume sets on plants and their uses, e.g. CRC World Dictionary of Plant Names, CRC World Dictionary of Grasses, and CRC World Dictionary of Medicinal and Poisonous Plants (Quattrocchi 2000, 2006, 2012), all of which have served a wide variety of users. The new two-volume set CRC World Dictionary of Palms. Common Names, Scientific Names, Eponyms, Synonyms, and Etymology follows this tradition....

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