

# Analysis of Date's Market Functioning (Phoenix Dactylifera L), in Ouargla, South-Est of Algeria: Challenges and Constraints

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**Abstract.** This study aims to analyse date's market functioning and constraints that are facing it in Southeast of Algeria, Ouargla region. To analyze potential market pathways (traders, collectors and intermediaries) 100 respondents were randomly selected. Descriptive statistical analysis has been applied to achieve the research's goals. Analysis confirms that, Ouargla does not have an organized date-palm market dedicated to dates only, and which is characterized by total anarchy mainly due to lack of improved and advanced management, regulation and a lot of intermediaries spread. Date's marketing in this area of study is complex because it is a string composed of producers, collectors, storers and mandataries in upstream. However, packers, processors and exporters are in downstream, thus a stakeholder's divergence is created, for varieties quality as well as destinations in the marketplace's channels. Most of traders are at an economically active age. Therefore, they should be able to perform their marketing functions effectively. Date's varieties that are sold in the area of study differ from trader to another which is depending on their availability customers, prices offered as well as operator's financial capacity. Indeed, 46% of fresh dates are available in market during the full harvest period but unfortunately this coincides with local and external market's saturation where imbalanced supply and demand induce lower date's price. This study allows to identify main constraints of date's sector marketing that hinder its efficiency, which are related to technical, professional, social - cultural and commercial environment as a result this sector's market suffers from serious dysfunctions.

**Keywords.** Date palm, Marketing, Value chain, Operational, Quality.

## 1. Introduction

Palm date's fruit contain rich compounds that have great importance in human nutrition, especially carbo-hydrates, salts and minerals, dietary fibre, vitamins, fatty acids, amino acids and protein besides having anti-mutagenic and anti-carcinogenic properties [1]. However, the date, which many consider it as a dessert is the basic food of many populations and could be used in preparation of many high energy and dietary food products. Palm date's fruit is offered for sale.

all over the world as a high value confectionery, and as a fresh fruit it remains an important subsistence crop in most of the desert areas. It is produced largely in hot arid regions of the world. Palm date is a viable economical food supply due to it's ability of using dates to provide products with added value; such as date flour, fiber concentrate, juices, jam, fruit bars, sugar, alcohol and functional

ingredients in drinks, dairy and baking industry [2,3,4]. Considering the importance of date palm and dates at national and international level, it is a very important and effective asset for agricultural products at national economy development.

Algeria is a country with great potential for date palm. It ranks as the fourth largest producer in the world representing 13 percent of dates world production and the first Deglet-Noor producer. More than 167 663 hectares are planted by 18.53 million palm dates, whereas productive palms are estimated at 15.7 million, it is about 84 percent and the production is approximately 10.58 million tons in 2017 covering a value of 332.4 billion Algerians dinars [5]. However, even these quantities, Algeria is ranking only the seventh country in date's exportation by 58 000 tons [6]. Date's exports is relatively low in Algeria because only 4 percent of its total production is exported. Development and promotion of date's sector have a positive impact on the national economy in terms of increasing non-hydrocarbon exports, in job creation, reduction of similar goods importation and therefore contribution in country's food security. Ouargla region is among Algerian's most important areas of palm date's cultivation, it is characterized by its production of different shapes, colors, consistency and tastes. At Ouargla province, during the crop year "2019-2020" various date's varieties have been harvested, they were about 170 000 tons. This harvest includes 95 000 tons of Deglet-Noor which is a high quality variety, 50 659 tons of Ghars variety and 24,340 tons of Degla Baidha and other varieties with low market value [7].

Date-palm sector in Ouargla region is characterized by almost total lack of close interfaces between upstream and downstream, whether in terms of commercial transactions or communication. This study seeks to understand date's market dynamics in particular consumption assessment and identification of different channels, surveys for traders and consumers were conducted to:

- Describe date's market organization and functioning in Ouargla region.
- Identify constraints facing operators and stakeholders in the sector.
- Evaluate selling prices and consequently consumption rate at the region of study.

This paper is divided into three sections; in the first one there is a brief overview of date palm situation in Ouargla province (production, area of study, number of palm date trees and yield), in the second there is an investigates about date's marketing in local market, conclusions are drawn in the third section.

Various studies show that "date's" sector in Algeria is experiencing difficulties in its operation and does not achieve expected objectives [8,9,10]. They agree on the fact that the sector fails to grow its market share at the international and even the national one, except for Deglet Noor variety, and main sector's constraints are related to technical and socioeconomic conditions of date's production. However, few studies have been published on marketing and consumption of dates in Algeria, this lack of information is due in particular to a total disruption of it's whole commercial system.

## **2. Materials and Methods**

### *2.1. Study Area*

This study was conducted in Ouargla province, Algeria, it is located in the South-Est of Algeria covering an area of 194 552 km<sup>2</sup>, it remains one of the largest administrative communities of the country. Ouargla region is situated in North-Est part of northern Sahara. It is separated from the mountainous area by the limestone plateau of Tinrhert, it is a flat region of low altitudes; ranging from - 30 to 200 m. It is an oasis where diversity is considered important with agricultural activity strongly dominated by palm date's cultivation, which constitutes until today a main source of life for several families in the Saharan regions [11].

### *2.2. Sampling*

To analyse the marketing and consumption of date's in Ouargla region, Survey plan and field work Survey are considered as the best method to carry out research in the market system. Collecting data through questionnaire has the advantage of being systematic, economical, quick and reliable.

In this study two sources of data were applied, the first were collected through a field survey by using questionnaires (two separate questionnaires) were developed to target 100 marketers in this study. The second were collected from appropriate sources such as the Ministry of Agriculture and rural development archives and previous studies, the essential information were gathered during 2019 using a total arrangement of prepared survey.

### 2.3. Data Analysis

#### 2.3.1. Descriptive Statistics

Data collected for the study were analysed using descriptive statistics, such as mean, standard deviation, frequency and percentages to describe date's market characteristics in the study area.

#### 2.3.2. Marketing Margins

Marketing margin is the differentiation between sale costs (received cost and paid cost) of at least two agencies for the same amount of a particular product. The equation used to calculate the marketing margins is below:

$$Mm = Rc - Pc$$

Marketing margins identify difference existing between the cost of purchasing items and the income made after their sell.

Where, Mm means marketing margin, Rc indicates received cost and Pc represents paid cost.

## 3. Results and Discussion

### 3.1. Importance of Date's Sector in Study Area

Ouargla region is ranking among the potential areas of palm dates cultivation in terms of quantity and quality, it has more than 2.6 million date palms trees, 92% of which are productive, cultivated on a surface of 24 140 ha which is more important than the entire areas harvested in whole countries such as Bahrain, Kuwait and Qatar in 2016 with respectively 3986 ha; 3021 ha; and 2,407 ha [12].

**TABLE 1.** Date palm in Ouargla region.

| Varieties       | Total number of plants | Production (tons) | Yield potential (kg/tree) |
|-----------------|------------------------|-------------------|---------------------------|
| Deglet Noor     | 1 435 032              | 93802,2           | 75                        |
| Ghars           | 778 679                | 47658,4           | 65                        |
| Degla-Biedha    | 175 223                | 8731,1            | 57                        |
| Other varieties | 239 885                | 14824,7           | 64                        |
| Total           | 2 628 819              | 165016,4          | /                         |

Source: Agricultural Services Department of Ouargla, 2019.

As illustrated in table 01, Deglet Noor variety remains the most cultivated with 1,435,032 palm dates on 13 063 ha of which 1,258,489 are productive. While the common date varieties like soft (Ghars and similar) and dry (Degla beida and others) total palms is 1,193,787 occupying an area of 11 077 ha, of which 91% are productive.

A production of 1 650 16,4 tons of various dates varieties has been recorded in Ouargla for the crop year (2018-2019). This harvest concerns 938 02,2 tons of Deglet-Noor variety (high quality), 476 58,4 tons of Ghars variety and 8731,1 tons of Degla Beida and other varieties with low market value [7]. Date palm yield per hectare was the highest in ouargla region. Data clearly indicat that ouargla is characterized by excellence of palm date cultivation for it's high quality and remarkable date palm

production. Even if the average potential yield of Deglet Noor variety is considered the best because of its high quality for export, and most of producing varieties has potential yield about 75-57 kilograms. These yields although they are higher than those of Arab countries (40 kg/tree) and 33 kg/tree in the world but remains low compared to those recorded in Egypt, 111kg, and in Coachella Valley oases in California where they exceed 91 kg/ plant [13]. Palm yield's depends on the variety, and the cultural management. It is clear that the productivity of the date palm tree differs within distinct countries, and is mainly related to the farming system adopted, variety and agro-ecological systems.

### 3.2. Date Palm Varieties

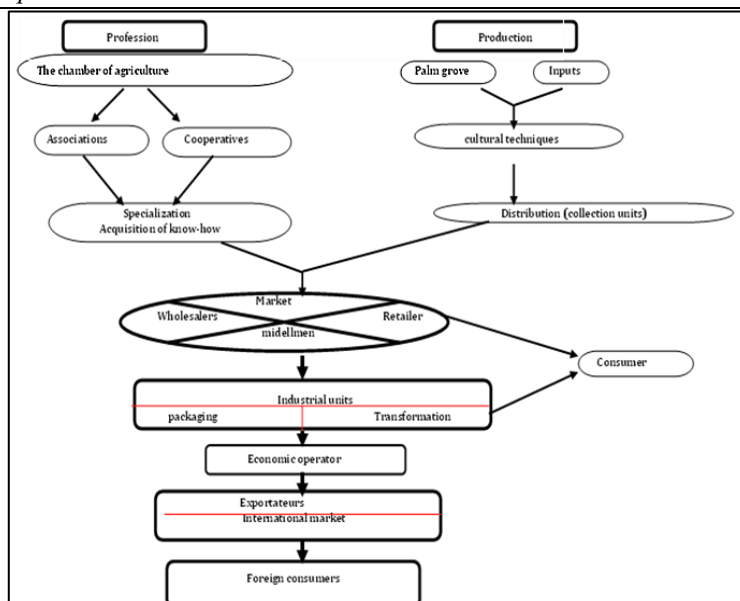
Surveys rendering, show that Ouargla region has 90 cultivars comparing to cultivars number of Oued Righ (121) and 115 in Ziban, while in Mzab they are 139 [14]. And noting that Gourara region ranks first with 229 cultivars. According to our surveys results there is a predominance of Deglet Noor, Ghars and Tafezwine variety in all farms with a marketing purpose. This decline of varietal component in Ouargla region indicates the loss of traditions and habits of valuing dates. In addition, many of these varieties are subject to erosion due to various factors: palm groves ageing, orientation to monovarietal cultivation, degradation of traditional palm groves, water deficit and rural exodus. Main date cultivars found in Ouargla oasis are: Deglet Noor, Ghars, Tafezouine, Takrmouste Degla Bieda, Litim, Ammari, Tamsrite, Ali W'rached, Timjoughrete, Mizite and Bent k'bala. Most of them have soft consistency, with ovoid fruit shape, and are not widely traded.

### 3.3. Harvest

Date varieties (Deglet-Noor and the common date) traded in the study area are harvested from July to November. All of these varieties have the advantage of maturing over 6 months of the year from June to November. Indeed, while some are early cultivars and mature in July (Ghars, Takarmoust, Ammari, etc.), Others begin to mature between August and early October for (litim, Tafzouine, bent kbala), the late ones remain until November such as (Deglet Beida, Ali w Rached, ...) considered as rare in the oasis of Ouargla. This is an advantage and allows the local population to have access to fresh date production for months, this is a balance factor and socio-economic stability in the oasis environment. The early ripening of certain varieties (Ammari and Ghars at ouargla, Agaz and Cheddakh at Tidikelt) [15] offers the opportunity to be supplied for international markets, but unfortunately, they are not exported.

### 3.4. Marketing of Dates in Ouargla

Date market, in this area, is characterized by total anarchy mainly due to lack of regulation and proliferation of intermediaries. In order to better understand organization's problems of this market, we were interested in following different stages of market movement up to the consumption phase. This market is specific by its regional production character, seasonality and the destination of this product: subsistence product for locale people, secondary product or luxury for national or/and foreign consumption (Fig. 1).



**FIGURE 1.** Organization of date palm cultivation sector in study area.

Dates marketing in Ouargla region is quite complex because it is a chain composed of several components. In upstream, producers, collectors and storers or mandatory, and in downstream there are: packers, processors and exporters and as a consequence a divergence of stakeholders, varieties, quality as well as destinations in the market system. The study of commercial practices in local date's market in Ouargla allows to have local market's inventory to determine the commercialization circuit and describe the socio-economical characteristics of dates marketers then understand the market's complexity and specificity and by consequence know date's place in the Ouargla region economy.

### 3.5. Socio-Economical Characteristics of Dates Traders

This section describes socio-economical characteristics of dates traders in the studied area. Covered variables of the marketer are: origin, age, type, activity classification, type of activity which are presented in Table 2.

**TABLE 2.** Socio-economical characteristics of dates marketers.

| Variable                | Modalities     | Percentage | Mean | Standard deviation | Coefficient of variation |
|-------------------------|----------------|------------|------|--------------------|--------------------------|
| Marketer origin         | Native         | 94         | 1.06 | 0.239              | 0,225                    |
|                         | Allochthon     | 6          |      |                    |                          |
| Marketer Age            | <25 year       | 2          | 3,22 | 0,848              | 0,263                    |
|                         | 25-35 year     | 21         |      |                    |                          |
|                         | 35-50year      | 30         |      |                    |                          |
| Marketer type           | >50 year       | 47         | 1,53 | 1,020              | 0,666                    |
|                         | Producer       | 73         |      |                    |                          |
|                         | Dealer         | 11         |      |                    |                          |
| Activity classification | Intermediary   | 10         | 1,28 | 0,451              | 0,353                    |
|                         | Standing buyer | 6          |      |                    |                          |
| Type of activity        | I              | 72         | 1,38 | 0,488              | 0,354                    |
|                         | II             | 28         |      |                    |                          |
|                         | Annual         | 64         |      |                    |                          |
|                         | Occasional     | 38         |      |                    |                          |

Source: Field survey, 2019

### 3.6. Origin of Dates Marketers

Most sellers are from the study region, with 94 percent, who both them or their sons are farming palm, while those who are non-native represent only 6 percent.

### 3.7. Age of Dates Marketers

Dates marketers age might affect their marketing ability to a certain extent, as this involves interaction with different types of actors inside and outside the market. Results in Table 2 show that dates marketers age in the study area is between 20 and 67 years old. The average is 40years, with a standard deviation of 0,848. Further, they show that most sellers are over 50 years old, accounting for 47%. The result is supported by [16] who reported the advanced age of many farmers, of Oued Righ area, 41percent are over 60 years old. Indeed, among these traders their age vary from 50 to 35, and between 35-25 years representing 30 percent and 21 percent, respectively. This shows that most marketers are at an economically active age and should be able to perform their marketing functions effectively. [17] defines the economically active population to be within 15-64 years.

### 3.8. Marketer Type

Date market channels in the study area are characterized by several actors and stakeholders intervention, the results indicate that majority of marketers are producers with 73 percent, it was noted that only 6 percent of the surveyed are permanent buyers which is the main economic intermediary between producers and packers-exporters. [16] reports that in the Djamaa region, permanent buyers represent 20percent of total stakeholders.

### 3.9. Classification and Type Activity

[18] Define occupation is individual's source of livelihood and where the person spends much of his time. Table 2 shows marketer's classification based on their major occupation. Results reveals that 72 percent of marketers had dates trading as their major occupation. However, 64 percent of this category practice this activity throughout the year in contrast to other occasional sellers represented by 38 percent of marketers who sell dates during well-defined periods such as the month of Ramadhan where prices rise to take maximum advantage of profit. For this second category, 28 percent have another activity, dates marketing for them represents only a secondary activity that is carried out in parallel.

### 3.10. Characteristics of Marketed Products

**TABLE 3.** Characteristics of marketed products.

| Variable           | Modalities         | Percentage |
|--------------------|--------------------|------------|
| varieties sold     | Deglet-Nour        | 77         |
|                    | Ghars              | 14         |
|                    | Deglat- Biedha     | 9          |
| Maturation stage   | Routab             | 10         |
|                    | Tamar              | 90         |
|                    | Cluster            | 23         |
| Type of production | Sprig              | 25         |
|                    | Bulk               | 52         |
|                    | Conventional       | 32         |
| type of packaging  | Cardboard          | 60         |
|                    | Polyethylene       | 6          |
|                    | under vacuum       | 2          |
| Storage time       | 1-3 month          | 21         |
|                    | 3-6 month          | 38         |
|                    | more than 6 months | 41         |

Source: Field survey, 2019

### 3.11. Varieties Sold

Date varieties sold in the studied area varies from marketer to another depending on its availability, customers and prices offered as well as operator's financial capacity. As shown in Table 3, Deglet's Noor variety sale is about 77%, either to collectors or to the weekly date markets. On the other hand, these proportions differ for the varieties of Ghars and Degla Biedha which represent respectively 14 and 9 percent of the dates sold. In fact, the ease of these varieties storage and packaging and their strong demand in African countries, especially for Degla Biedha, by where they are exported. Indeed, retailers use Deglet Noor variety because of its high price and consumer demand.

### 3.12. Maturation, Storage and Packaging of Dates Sold

Vended dates on local markets in the studied area are under two ripening stages of maturation. First, they are at the routab stage for soft dates generally (Ghars variety and similar) with a rate of 10 percent, this practice is very popular at season's beginning. These dates are sold very expensive because of their precocity. Second, they are at the tamar stage the ones that are in sell's season, and they represents 90 percent of dates in full maturity.

Dates packaging the most used in Ouargla is cardboard box, Deglet Nour as 1st choice variety is packaged at 60 percent by cardboard boxes which might vary from 500 g to 5 kg. The rest Varieties are subject of conventional packaging, and under customer's demand a vacuum-packaging is applied, even it is a very limited part (2%).

Deglet Noor variety is stored under cold, Ghars variety is piled and Degla Biedha in jute bags. This is during a period ranging from 1 to 9 months depending on market demand and storage conditions. Although storage for a long time could cause partial drying out (weight loss) for soft and semi-soft dates. [19], reports that depending on the warehouses storage conditions, mainly the temperature, the storage time of Deglet Noor at a temperature between +4 to -4 ° c could be up to two years. In United Arab Emirates , most dates are stored at -3 ° C for up to a year [20].

### 3.13. Characteristics of Local Dates Markets

The Ouargla region has 09 local markets, including 05 daily ones among them a wholesale market. and 04 weekly markets. Generally different market's activity begins from sunrise until 12 am. Collect rooms are estimated at around 200-250, and they are characterized by small to medium size and low hygiene conditions of storage.

### 3.14. Harvest Collection

In most cases, harvesting is achieved through intermediaries. Thus, dates market drains stakeholders that are attracted by the easy gain and taking advantage of the trade's circuit anarchic nature. Even though, this no professional vocation of intermediaries is recognized, they appear at the producer even before the full fruit's maturity to negotiate transactions. Also, the most difficult case is the sale of dates that are still on the tree, not harvested yet, However, its magnitude, threatens to accentuate the market destabilization because this induce a parallel trade of large dates quantity. 15 percent of farmers sale their production by this process, they would tend to avoid any registration requirement and harvest costs. [10] report that 23, 67 percent of farmers sell their product on the tree in the Touggourt region.

The results indicate that more than 85 percent of dates marketing is traditional, from farmers to consumers, where producers sell their dates after harvesting directly to local markets localized in productions area and markets in the neighbourhood without any further processing. This result seems to that found in Touggourt region where 66.78 percent of farmers trade their products after harvest in local markets [10].

Dates are commercialized without any proceeding, such as sorting, grading, steaming, and washing. Dates are marketed under two stages related to the fruit maturity: The stage wet sweet (fresh) and final matured fruit.

### 3.15. *Destination of Production*

The analysis of the production destination structure show that the lion share, which is more than 80% of the total production in this region (all varieties combined), is intended for marketing. And, only 6% of this production is devoted to self-consumption. Low quality dates (sich) is destined to livestock feed, this part the total of production is about 10%.

Most quantities of sold dates go to the local market with 58 percent; 17percent of the spot sales to intermediaries, 12 percent to the regional market, and only 6 percent for export.

### 3.16. *Period of Sale*

46% of marketed palm dates production is during the full harvest period of fresh dates, but unfortunately, this period coincides with markets saturation. In addition, this period corresponds to a massive internal market activity, and allows the disposal of almost all unconditioned dates, where the majority of farmers don't have refrigerated storage means. This period is characterized by low dates prices caused by imbalanced supply and demand. In Ramadan, the Muslim's fasting month, dates consumption rises and demand becomes very strong. For this reason, 25% of dates are sold with expensive prices during this holy month. The rest of 29% dates are traded throughout the year, either conditioned or stored in cold storage rooms.

### 3.17. *Assessment of Supply/Demand*

Demand and supply analysis is an essential tool used in economics to clarify business decisions. An analysis of supply and demand, based on factors such as trends and seasons, could predict market changes effects. Analysis of supply and demand in the studied area shows that 61% of total respondents declare that supply is more than demand. While 22% consider that it varies according to products availability in quality and quantity, selling period, and offers competitiveness. On the other hand, 17 percent state that supply is much more than demand, and the market is saturated, in addition of several marketing problems such as low demands, and non-remunerative prices.

### 3.18. *Types of Commercial Transactions*

According to investigations carried out at dates-producing farms in the studied area, there are three types of transactions.

Collectors (kherrass), they buy standing production then they transfer it to large growth markets in Touggourt and Biskra regions. Buyers (kherassa) of Deglet Noor variety comes from different towns.

Direct sales, producers sell their dates to collectors or wholesalers directly after harvesting at the farm gate or at local markets localized in the production areas and markets in neighborhood, without any further processing, especially for soft and early cultivars.

Sale at dates storage and collection places which particularly represent barter trade where marketer transport marketed lots to bordering countries for southern Algeria, such as Mali and Niger, and this is valid particularly for dry dates cultivars.

According to the survey conducted about distance from markets to producers, 58 percent of respondents judge that markets are close of 8 percent and declare that markets are far and they have problems of transportation.

### 3.19. *Marketing Costs of Dates Producer*

Dates palm producers in Ouargla region as all palm dates farmers pay a considerable amount of marketing costs after harvesting. Data in (Table 4) indicat that marketing costs comprise products loading/unloading and its transportation to the market place. Dates producers in the study area pay 5000-8000 AD per 100qx as loading charges, the same for unloading costs, 7000 AD as products transportation from farm to market, total marketing costs is estimated at 20000 AD as reported by date palm growers in the study area. Middlemen chain in dates marketing is so large that makes farmers part is reduced substantially.



**TABLE 4.** Marketing costs paid by date palm growers.

| Cost components | Total cost (AD <sup>a</sup> ) |
|-----------------|-------------------------------|
| Loading         | 8000                          |
| Transportation  | 7000                          |
| Unloading       | 5000                          |
| Total           | 20000                         |

source: Author's surveys, 2019.

Notes: <sup>a</sup> AD: means Algerian dinars (Algerian currency unit)

Dates marketing is done at municipal market level. Dates prices in Ouargla region vary according to quantity, quality and market demand, dates profitability is totally linked to Deglet Noor variety profitability.

**TABLE 5.** Sales prices of main varieties marketed in Ouargla region.

| Varieties    | Category      | Price (AD/kg) |
|--------------|---------------|---------------|
| Deglet Noor  | Extra         | 150-250       |
|              | Second class  | 60-100        |
| Ghars        | Loose dates   | 60-80         |
|              | Pressed dates | 120-150       |
| Tafzouine    |               | 70-100        |
| Degla Baidha |               | 60-80         |

source: Author's surveys, 2019.

Table 5 shows selling prices of main varieties most marketed in Ouargla region. All categories of Deglet Noor variety are sold in bulk, bunches (Chemroukh) are not opted as in Biskra. The purchase price from dates producer is variable according to main criteria of price changes that are: type of cultivars, product quality, period of sale, maturation stage (bser, routab and tmar), prices indicated by producer varies between 60 and 250 AD. For standing buyers (kherrass): purchase price-workloads compared to selling price, standing buyer pays 50-60 AD/kg Deglet Noor. According to our investigations, it appears that dry dates price, in bulk and with medium quality such as Deglat Baidha, vary between 50-60 AD/kg and generally intend this price for barter trade. The selling periods of dates are occurred at the beginning of maturation (dates at the stage routab known as menugar locally) with a sales price varing between 100-400 AD/kg depending on availability, this marketing mainly concerns early cultivars of good quality (Litim, Ghars and similar varieties). Noting that fresh dates at early maturity are exposed directly by retailers without packaging. Towards total maturity (tamar stage) in full harvest season, bulk dates usually sold with low prices compared to those precocious. Outside dates season, dates in pressed form (btana) are presented in different weights packages (2 to 30 kg)

### 3.20. Price Spread

Price spread shows distinction between at least two organizations costs for same amount of explicit items. It alludes distinction between the cost followed by purchaser and cost got by producers for an identical amount. Data on (Table 6) shows that when dates arrived to the consumer from the retailer, their price has almost doubled compared to the price received by farmers. Therefore, the middleman was the main beneficiary because he spent minimum cost and earned high income in minimum period of time. The cost got by the date-palm producer from the middlemen (Wholesalers) was 165 000 AD per ton on average, while the retailer paid 220 000 AD Promotion for every ton to the middlemen who stashed 55 000 AD per ton. Also, the retailer got 300 000 AD Promotion for each ton from the purchaser procuring 80 000 AD on selling of one Ton date palm.

**TABLE 6.** Price spread from date palm grower to the ultimate consumer in the date palm market of Ouargla area.

| Varieties           | Agent                  | Price paid | Price received | Price spread | percentage |
|---------------------|------------------------|------------|----------------|--------------|------------|
| Deglet Noor variety | Middlemen(wholesalers) | 165000     | 220000         | 55000        | 40,74      |
|                     | Retailer               | 220000     | 300000         | 80000        | 59,26      |
|                     | Total                  | 55000      | 80000          | 135000       | 100        |
| Ghars variety       | Middlemen(wholesalers) | 70000      | 100000         | 30000        | 60         |
|                     | Retailer               | 100000     | 120000         | 20000        | 40         |
|                     | Total                  | 30000      | 20000          | 50000        | 100        |

source: Author's surveys, 2019  
 price in Algerian dinars (AD)

### 3.21. Constraints on The Development of Dates Sector

Analysis of data collected reveals several problems and constraints that might affect the development of Algerian dates sector. Constraints are linked to technical, professional, social-cultural and commercial environment. The organization of dates industry in Algeria is not adapted to the rapid economical and social changes. This sector suffers from serious dysfunctions, such as:

- Low market value for common dates cultivars
- Shortage in qualified and trained staff (loss of knowledge and know-how among youth),
- Absence of strategies for genetic heritage safeguard, ageing and rarity of certain cultivars,
- High post-harvest losses during harvesting, processing and marketing,
- Oasis workforce is becoming increasingly rare, especially for youth that are looking for "softer" activities,
- Poor farm management, low product quality and consequently low returns.
- Pests and diseases and inadequate Integrated Management control (mainly problem of *Oligonychus afrasiaticus* is a common spider mite pest of the date palms).
- Increased transportation cost due to long distance from the farm to the market,
- Insufficient research and development activities.
- Processing of by-products date in a traditional way and mainly limited to production of dates dough, flour, jam and dates syrup. The introduction of new potential uses of dates and date-based products is modest, and therefore the use of by-products is low in the study area and in Algeria.
- Low local consumption of dates and per capita consumption is decreasing due to new food custom dominated by youth.

This is a serious obstacle to the development and dissemination of traditional know-how in date processing. This situation is reflected in low profitability of the activity, linked to a weak outlet for manufactured products. Semi-modern's processing promotion is mainly limited by insufficient knowledge of physiological characteristics and processing potential of dates and insufficient technological research.

### Conclusion

At the end of this approach, carried out in the Ouargla region which is with great dates palm potential. The big advantage is that production (in quality and quantity) is progressing and the prospects promising. However, this sector potential is largely underexploited. Efforts of all the actors in the sector remain insufficient for its development especially at dates commercialization level. The dates market is characterized by total anarchy mainly due to lack of regulation and intermediaries proliferation Selling dates periods of dates are manifested at the beginning of maturation (dates at the stage routab known as menugar locally) with a good sales price depending on availability. This marketing mainly concerns early cultivars of good quality (Litim, Ghars and similar varieties), noting that fresh dates at early maturity are exposed directly by retailers without

packaging, towards total maturity (tamar stage) in full harvest season, dates are usually sold with low prices compared to those precocious.

In general, dates marketing in Algeria is thus required to an exceptional upgrade and which must adopt a dates chain development strategy aiming to improve the products quality the packaging, the organization of local, regional and national dates market and adopt an exporting policy of Algerian dates to a new global market other than traditional ones.

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