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Research

Production Enzyme Invertase by Yeast Saccharomyces Cerevisiae Using Technology Fermentation Commentator

Asaad Mohammed A Ataa*

*Department Chemistry, Division Biochemistry, Faculty Applied Science, Thamar University

Abstract

Introduction and Objectives: Due to the many uses of baking yeast in several areas such as natural and industrial areas, including food processing and involving the production of Invertase enzymes, which is in many important areas, so its study has been aimed at using baking yeast in the production Enzyme enzymes and an impact study on the growth environment on enzyme production.

Materials and working methods: The study included two axes: the first: The method of isolating the bread yeast *Saccharomyces cerevisiae*, the yeast was isolated from natural sources (raisins-tomato-fig-bread) and the raisins were the best in producing the yeast in the dishes so that a sample was taken by the lob and placed in another dish It has the same center in which the yeast has been developed.

The second theme: an applied study on the impact of growth environments on enzyme production and the impact of temperature and PH and the concentration of the diabetes solution on the efficacy of the enzyme has been done in two stages.

The first: study of the effect of natural extracts on enzyme production where extracts such as (dates-raisins-fig-potato) were used as follows so that they were developed individual extracts, sterilization and vaccination (isolated yeast) and incubation for 48 hours at 30 m o and 200 cycles, after which he was nominated Take the deposit and the leaky individual and study the enzyme's ability to degrade the sucrose and how the factors affect the efficacy of the enzyme (temperature-PH concentration-) and note the production of the an esterase enzyme in a leaky fig extract was highest at PH = 7 and 80 °C, and when the solution of diabetes is concentrated to the solution Enzyme 5:1 in both concentrations (5-10)%.

Second: to study the production of developing biomass on both isolated and ready yeast enzyme production.

This process took place in two stages:

The first: The vaccine environment, dishes containing an isolated and ready-to-powder water yeast were taken and placed in pipes containing the center of yeast extra agar and for a 2-3 days at 30 °C and at 200 cycles, 1 ml of distilled water per tube was added to be suspended and added to environments a For a vaccine.

Second: fermentation environment the fermentation environment was prepared in the same manner as in the context of the vaccine environment and under the same conditions, 5-10 ml of the vaccine environment were taken and added to the environment fermentation and the same conditions as the vaccine environment. The resin was then separated from the biomass and deposited by acetone and washed away by Structured solution and estimation of decomposition ratio where the best value is at PH = 3.6 and when the diabetic solution is concentrated to the enzymatic solution 1:1 and at 25 m o temperature.

Results: The results indicated that the glycolysis ratio of a leaky tin solution with PH and temperature effects on the efficacy of the enzyme at 5% concentration after the temperature was stabilized the results of glypH analysis are uneven at the top of the neutral center and the lowest in the acid Center between (368-251 mg/DI) and when installed pH coefficient and temperature variability the results of glucose analysis ranged from (340-360 mg/DI), where the temperature was 80 co and the lowest at 6 C^o.

***Corresponding Author:** Asaad Mohammed A Ataa , Department Chemistry , Division Biochemistry , Faculty Applied Science, Thamar University, Yemen, E-mail asaadataa00@gmail.com

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The inferences: That the glycolysis ratio of a leaky tin solution with PH and temperature effects on the efficacy of the enzyme at the concentration of 10% after stabilizing the temperature and changing the coefficient of the PH the results of the analysis of glucose were the highest in the neutral middle and the lowest in the acid medium between (368-251 mg/DI) and at pH stabilization and temperature coefficient change the results of glucose analysis ranged from (340-360 mg/DI), where the temperature was 80 co and the lowest at 6 C°.

Key Word: Invertase; *Saccharomyces cerevisiae;* Dates; Raisins; figs; potatoes; Bread yeast.

Introduction

Man has known since the foot fermentation process but he did not know that yeast S. Cerevisiae and she is doing so the fermentation process has attracted the attention of many researchers have used human yeast for the first time in the bake industry 2300 BC (1) and launched the scientific name Cerevisiae) (Saccharomyces first time On baking yeast by the world Meyen in 1838 then the world recess in 1870 m yeast cells require a process of pHysical isolation or the stationing of sound cells in a particular area of space, in terms of maintaining the required catalytic activities (Karle et. 1985).

Anfuras is an enzyme that is the catalyst for hydrolysis reaction to glucose and fructose (Bekatorou et., 2010).

Uses the fructofuranosidases, ec.3.2.1.26, to have a non-inversely molecular molecule to glucose and fructose, this enzyme is one of the key enzymes, which plays an important role in the sucrose metabolism [5, 4, 3], for the processing of developing tissue with hexagonal sugars (hexoses) A source of energy and carbon to sustain cell growth and development [7, 6], the high-end plants generally contain a set of permanently existing Anverticas [9, 8]. Most of them are beta-vertoside anverys and thus show a specialization similar to the specialty of yeast. [1]

Phytoplankton enzymes are classified as acid, neutral and base depending on the value of the PH for maximum efficiency. And most of these enzymes that are found in the vegetation tissue are of the type out of the pHone (extracellular) or dissolved [6, 10], the acid enzymes are either dissolved protein in the vesicle or Ionized with the cell wall and the PH is optimal for its efficacy (4.5-5.5). Acid enzyme is important for plant growth and has also suggested that it participates in the regulation of disharmony and reaction of plants to injury or injury [8,7].

The efficacy of acid inanities is mainly found in the organs of immature plants and decreases rapidly with the accumulation of sucrose at maturity. Neutral or base-based enzymes are polycytoplasmic and the research signals are linked to mature tissues and their function is to analyze the cytoplasm cells.

Recent studies have revealed the existence of neutral/base and fabricated analotetic symmetries of acid enzymes in the same vegetable tissue [9].

The Alides play a very important role in food processing and is used to produce a diabetic syrup, which contains reductionist sugars and which is the highest degree of sweetness of the same sucrose. And for monoculture resulting from the effect of a high melting degree, which is of great importance as it does not crystallize when it is found in high concentrations [1].

Objectives of the study:

1. Study of how the enzymes work in glycolysis of sugars.

2. How to take advantage of residues (dates, raisins, figs, potatoes) in industry.

Work Materials and methods

Materials Used

Agricultural Media Culture: All agricultural circles were prepared in accordance with the instructions of the company processed and sterilized with a temperature (121) m o and under pressure of 15 lbs/ang for a period of 15 minutes.

Solid agricultural Circles (ager): Central compound (agar, ptoon, Khmer ready, glucose, antibiotic)

- MF (yeast extra ager)

The agricultural liquid Community (broth): Natural middle of (dates-fig-potato), central yeast extra powder

Solutions and dyes used: Distilled water, sodium hydroxide na, Hydrochloric acid H-m ol, ethanol M o2h5oh, blue methlene dye

Devices and Tools

Devices: Centrifugal device, pH gauge, sensitive balance, cooling refrigerator, hood, Incubator shaker, sugar measuring machine, wet sterilization (autoclave), electric heater, Thermo gas cooker.

Tools and Glassware: Beaker Glass different sizes, Petri dishes, glass glasses, test tubes, LOB, nedal, filtration paper, cotton, adhesive and scissors.

Collection and preparation of samples

Both raisins, dates and figs were selected according to the appropriate descriptions of the rich community, so that figs, dates and raisins were taken from local markets (so that they were stored for a long time)

Isolate baking yeast: Yeast is isolated from natural residues such as figs, raisins and potatoes.

Table 1

Natural waste	Sample Collection Location	Natural waste	Sample Collection Location
Teen	Al-Saeedah Tamniat	The raisins	Souk Al-Raboaa (Internal Market)
Dates	Omran Stores	Potato	Ans Market

Method of isolating the yeast from the residues of fig-raisins, potatoes and bread mould

The center was prepared for the growth of the yeast to be isolated and the center of the 5-5glucose-15yeast bread-5agar and half of the antibiotic (Kotrix) is crushed.

These vehicles were then put into a 250capacity and then 250 ml distilled water was added and then blended the specimen until homogeneity.

The bubbles (biomass) that emerged during the preparation of the insulation were disposed of, the solution moved to do500in order to avoid the fermentation process that will cause the solution to exit out of the ducin and is equated to pH = 7.

The barrel of the ductile was then covered with a piece of cotton and tin, after which it was placed in the sterile (lesser) for 15 minutes, from US 121 m and at 15 pounds pressure.

Then he gets out of the sterile and leaves until it's cool, and then the isolation room is sealed and the ducthe is hot. The regular nozzle is sterilized and poured into the Petri dishes and the nozzle is sterilized every time the casting is made.

Before the centre hardened, the figs and raisins were cut into small pieces of scissors (after sterilization) and each dish was then determined by the alphabet (Fig-raisins-bread-X).

I put five to six pieces inside each dish. After finishing the operation, the dishes were placed in the rocking incubator, and were held at 30 m o Temperature for 48 hours.

After 48 hours, the growth of yeast, which is bright white, was observed and growth was significant in the middle of the fig and raisins.

The same previous middle was prepared and then the yeast that grew on the media was taken and placed (isolated) into a Petri dish containing the previous center was the lube is sterilized and then cooled at the end of the dish and then this yeast is taken on the center either in a layout way or in a complex way, and after 48 hours the growth has been Pure yeast (planned-assembly).

Preparation of natural Media for yeast development

200of dates were weighed after washing and directing the passing beads and putting them in the baker and then 200is added from distilled water and then it is placed in the heater and boiled until it begins followed by the mortar and then filtered and the resin is taken and put in a dud ash and sterilized by the sterile And then you leave to harden, then put in a petri dish and leave the stiffness and then take a swab from the yeast that is isolated by the lop. They were then sterilized and placed in a planning manner, and the dishes were then placed in the rocking incubator for 48 hours and at 30 °C.

It is noted that both the figs and the potato-raisins have been done in the same way as in the previous 60 cycles.

Yeast detection methods

After 48 hours on lap (growth period) baking yeast from residues (dates-fig-potatoes-raisins).

A tinge of Saccharomyces cerevisiae bread yeast was taken by the Lop after being sterilized to a slice either in a wet or dry way and then the slice cover is placed on the area where the yeast is placed on it to make it evenly on the slides.

The wet method has been a drop of distilled water to the middle of the slide and after this process a swab is taken from the yeast and then it is returned with the distilled water in a circular form and then dried by a rapid flame pass.

The slice is dyed by the methylpHenolic dye or the fungal lactic dye of the enema and then put a drop of oil and its diameter under the microscope with the oily lens. The yeast shape is observed and it has colonies and an oval shape.

Preparation of the center (Glucose-Ptoon-Yeast-Ready-Antibiotic)

This process was done to take the Saccharomyces Cerevisiae, which grew on the previous media, and was prepared with the same previous weights, and the center was poured into the dishes after sterilizing her and leaving her hardened, the lop is sterilized and inserted into the ducal that contains the center of the activation (dates-teen-potato) separately after Sterilize it every time.

It takes a wipe from the Saccharomyces Cerevisiae and then put it in the middle after it was hardened by the layout method, the quality of the dishes (Fig-dates-spud) was determined.

They were then placed for two days in the vibrator at 30 m o and the dishes were inverted, and two days later a glossy white color was observed on the dishes.

Forty-eight hours after the yeast was activated, the growth of the deposit under the ducal was observed and is a growth of the mushroom.

The media are taken and filtered and the deposit is washed with an orderly solution, the resin is taken and deposited again with the acetone or ammonium sulfate.

Deposition method

The 250of acetone was added to 250 of the Ramos 1:1 and leaves a period until it is sedimentation, then it was filtered after observing the deposit, and then the glucose ratio has been read for each of the center (dates, figs, potatoes, raisins) as shown in table 1.

Method of work of the media to configure the biomass

20 tubes have been taken, washed and sterilized by sterile but before insertion into sterile, they are covered by cotton and tin and then placed in sterile.

5.75 (yeast Agar) was weighed and then placed in a 250of distilled water, and then the DOQ was covered cotton and tin and put it inside the sterile with pipes at 15 pounds and for 15 minutes in fully sterile conditions.

After 15 minutes, the center and pipe were ejected into the sterilization room and the center was left to cool and the 5ml were taken from the center and added to the pipes that were previously sterilized and then the pipe was put in a way that hopefully will harden so that it solidifies the center in a hopeful way.

Method of distributing the yeast (ready-insulated) in the pipes of the central yeast Agar

-some dishes that have been quarantined have been taken with any dishes containing the pure Saccharomyces Cerevisiae yeast and are taken from them by the lop after sterilization, a smear of the isolated yeast is taken and rubbed on the surface of the tube with no mid tone. 10 other tubes have been put a quantity of baking yeast ready.

After completion of the distribution, the pipes are placed in the vibrator incubator for two to three days at a temperature of 30 m O.

Three days after the growth of a biomass was observed in the pipes containing the center of the yeast extra Agar

20 tubes of distilled water are taken and covered with cotton and tin and placed in sterile at 121V for 15 minutes and at 15 pounds pressure

The pipes were then ejected and cooled and adding 1of distilled water to the pipes containing biomass is well blended

Method of preparation of the vaccine centre

-Weighs 7.5 g/ml of sucrose

-1.25 g/ml of betoon

-1.75 g/ml from yeast extra powder

All of these ingredients are placed in the 250and the 250are added from distilled water and at PH = 7 and then sanitizing.

Similarly, four 250 and washing of cotton and tin were also covered and placed in sterile with the centre at 121 m O and 15 pounds of pressure for 15 minutes.

Then the 1of the pipes that were previously rubbed or containing a dynamic block added all of the 1to 25ml from the four-way center.

And then the parchment was rubbed well and the four Ducas were taken and placed in the rocking incubator at 30 m O and 48 sessions and 12 hours (this step to see if the biomass will analyze the sucrose or not)

Twelve hours after the vaccine environment again yeast extra broth and with the same previous weights.

25ml was taken from the middle to sterile dudout and then added 5ml of the vaccine environment (ready yeast) is taking 5ml yeast ready (present in the vaccine environment) to 25ml from the center of fermentation (from the fermentation environment), 5ml yeast (from the vaccine environment) is taken to 25ml from the center of fermentation to the fermentation environment and all ducas is identified. On what contains (ready or insulated yeast).

After the growth of biomass in the fermentation environment, after 48 hours, this fermentation environment was taken and the extraction process was carried out using the centrifuge (centrifuge) at 5000 courses in 15 minutes.

After 15 minutes, the center and pipe were ejected into the sterilization room and the center was left to cool and the 5ml were taken from the center and added to the pipes that were previously sterilized and then the pipes were put diagonally so that they hardened the center diagonally.

5.2. Method of distributing the yeast (ready-insulated) in the pipes of the central yeast Agar

-some dishes that have been quarantined have been taken with any dishes containing the pure Saccharomyces Cerevisiae yeast and are taken from them by the lop after sterilization, a smear of the isolated yeast is taken and rubbed on the surface of the tube with no mid tone. 10 other tubes have been put a quantity of baking yeast ready.

After completion of the distribution, the pipes are placed in the vibrator incubator for two to three days at a temperature of 30 m O.

Three days after the growth of a biomass was observed in the pipes containing the center of the yeast extra Agar

20 tubes of distilled water are taken and covered with cotton and tin and placed in sterile at 121V for 15 minutes and at 15 pounds pressure

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After the growth of biomass in the fermentation environment, after 48 hours, this fermentation environment was taken and the extraction process was carried out using the centrifuge (centrifuge) at 5000 courses in 15 minutes.

The deposit (biomass) is then washed with distilled water and the resin combines both a leaky yeast-ready and isolated yeast and also each deposit separately.

-the resin was then taken and the mechanism was added to the deposit and then it was extracted using the centrifuge again and washed the deposit with distilled water.

Then, sugar solutions have been added to the resin and the deposit, and the Iscrose decomposition ratio is read with or without an add to the acetylsis as it exists in the table (where number)

The center of yeast extra broth was also prepared

In addition to each of the 25ml in the fermentation environment, either 5ml or 10was added to one of the 5ml and to the other 10of ready-made yeast, isolated yeast and in the same way it is placed in a vibrator nursery for two days at 30 m o and 200 cycles and after 28 hours, a dynamic block is observed in the fermentation environment

The extraction is done using the centrifuge in the same manner and the deposit is washed with distilled water both individually and leaky.

It was added to the resin of acetone and was deposited and then the glucose ratio is also read at the addition of acetone and without acetone as shown in the table

Note:

- (Size of a leaky yeast 5ml added Center fermentation = 16ml acetone is added)

- (the size of a leaky yeast-ready 10added to the center of fermentation = 30and acetone 30)

7-2-3-1. Preparation of the centre of raisins to stimulate yeast

The 200 of raisins were weighed and placed in baker and the addition of 200of distilled water is heated up to boiling and is mashed by mortar.

After the process of the index, the resin is placed in a conical ducin and the pH = 7 equation and then sterilized with the move.

Then pollinate the raisins by taking a swab of the yeast (insulated) found in the dishes by the lop and after sterilization is placed inside the parchment, then the center is taken to the rocking incubator at 30 pm O for two days

Two days after the vaccine and the activation of the yeast, a biomass has grown in the form of a deposit at the bottom of the ducal. Filtration and washing of the biomass (deposit) with an orderly solution (Sodium-Citric acid)

The weight of 7.25 g from the citric-G-5.25 is from steric acid, while the resin is added to a part of the acetone. Then they are filtered and washed the deposit with distilled water and then measure the decomposition rate as in the table

Preparation of diabetes solution

5% focus

- 5is weighed from the sucrose and dissolved in 100distilled water

With a concentration of 10%

- 10g of sucrose is weighed and dissolved in 100distilled water

Results and Discussion

Sources of insulation yeast *Saccharomyces Cerevisiae*

1. Through the work done by observing the results it was observed that the method of isolating the yeast *Saccharomyces Cerevisiae* of raisins was better than other sources compared to the atoms and the bread and the figs while in the baking are the least or almost no yeast *Saccharomyces Cerevisiae* where it appeared in the raisin material Shiny sticky popping up during the rot in all the dishes containing the bread.

2. Study of the impact of growth environments on enzyme secretions

Dietary extracts of dates, figs, raisins and potato were used where observed

i. The effect of Fig extract, which contains yeast on enzyme secretions, was the best by a percentage where a value was shown in the sugar device and this signifies the decomposition of the sucrose to glucose because of the presence of the Invertase enzyme.

ii. The effect of potato extracts on an enzyme that was 0%, no effect, as no value was observed in the sugar device, which indicates that the sucrose is not dissolved because there is no ant cholinesterase and that the potato contains complex sugars.

iii. The effect of the dates on enzyme secretion.

The decomposition rate was 38%, where a value was shown in the sugar device, and this indicates glycolsis to glucose, which is evidence of the Invertase enzyme.

i. The effect of raisin extracts.

ii. The degradation rate was 86%, with a value in the sugar device, which signifies the glycolsis to glucose, which is evidence of the Invertase enzyme.

Glycol sis ratio of a leaky teen trying to study the effect of PH and temperature on enzyme efficacy. Temperature stabilization of enzyme efficacy with concentration of 5%.

Tables (6.1.1 to 6.1.4) illustrate the comparison of glucose analysis to study the efficacy of the production of the enzyme and the comparison of each substance.

6.1.1 Percentage decomposition of Glucose in solution leaky Teen with study the effect of pH temperature on the effectiveness of Enzyme.

6.1.1. Install the temperature of effectiveness of Enzyme concentration of 5 %.

Concentration of diabetes solution	Ratio of diabetic solution to enzymatic solution	Temperature	PH	Decaying glucose ratio	Enzymatic decomposition ratio
5 %	**5:1**	**25**	**7**	**368mg/dl**	
5%	**5:1**	**25**	**11**	**343mg/dl**	
5%	**5:1**	**25**	**3.65**	**251mg/dl**	

6.1. 2. Install the pH of effectiveness of Enzyme concentration of 5 %.

Concentration of diabetes solution	Ratio of diabetic solution to enzymatic solution	Temperature	PH	Decaying glucose ratio	Enzymatic decomposition ratio
5%	**5:1**	**26.5**	**7**	**303mg/dl**	
5%	**5:1**	**41.8**	**7**	**265mg/dl**	
5%	**5:1**	**6**	**7**	**360mg/dl**	
5%	**5:1**	**64**	**7**	**284mg/dl**	
5%	**5:1**	**70**	**7**	**345mg/dl**	
5%	**5:1**	**80**	**7**	**513mg/dl**	
5%	**5:1**	**25**	**7**	**287mg/dl**	

6.1. 3. Install the temperature of effectiveness of Enzyme concentration of 10 %.

Concentration of diabetes solution	Ratio of diabetic solution to enzymatic solution	Temperature	PH	Decaying glucose ratio	Enzymatic decomposition ratio
10%	**5:1**	**25**	**7**	**370mg/dl**	
10%	**5:1**	**25**	**12**	**291mg/dl**	
10%	**5:1**	**25**	**3**	**226mg/dl**	
10%	**10:1**	**25**	**4.5**	**385mg/dl**	
10%	**10:1**	**25**	**11**	**359mg/dl**	

6.1.4. Install the pH of effectiveness of Enzyme concentration of 10 %.

Concentration of diabetes solution	Ratio of diabetic solution to enzymatic solution	Temperature	PH	Decaying glucose ratio	Enzymatic decomposition ratio
10%	**5:1**	**26**	**7**	**278mg/dl**	
10%	**5:1**	**36**	**7**	**259mg/dl**	
10%	**5:1**	**80**	**7**	**515mg/dl**	
10%	**5:1**	**25**	**7**	**260mg/dl**	

6.2. Percentage decomposition of Glucose in solution leaky Dates with study the effect of pH temperature on the effectiveness of Enzyme.

6.2.1. Install the temperature of effectiveness of Enzyme concentration of 5 %.

Concentration of diabetes solution	Ratio of diabetic solution to enzymatic solution	Temperature	PH	Decaying glucose ratio	Enzymatic decomposition ratio
5%	**1:5**	**25**	**7**	**21mg/dl**	

6.2.2. Install the temperature of effectiveness of Enzyme concentration of 10 %.

Concentration of diabetes solution	Ratio of diabetic solution to enzymatic solution	Temperature	PH	Decaying glucose ratio	Enzymatic decomposition ratio
10%	**1:5**	**25**	**7**	**61mg/dl**	

6.3.Percentage decomposition of Glucose in solution Sediment Dates with study the effect of pH temperature on the effectiveness of Enzyme.

6.3.1. Install the temperature of effectiveness of Enzyme concentration of 5 %.

Concentration of diabetes solution	Ratio of diabetic solution to enzymatic solution	Incubation period	Temperature	PH	Decaying glucose ratio	Enzymatic decomposition ratio
5%	**1:5**	**24h**	**25**	**7**	**53.7mg/dl**	
5%	**1:5**	**24h**	**80**	**7**	**–**	
5%	**1:5**	**24h**	**6**	**7**	**12.7mg/dl**	

6.3.2. Percentage of Glucose in Sediment Dates concentration different temperature and pH different of concentration of 5 %.

Concentration of diabetes solution	Ratio of diabetic solution to enzymatic solution	Incubation period	Temperature	PH	Decaying glucose ratio	Enzymatic decomposition ratio
5%	**1:5**	**24h**	**25**	**4.5**	**218mg/dl**	
5%	**1:5**	**24h**	**25**	**12**	**217mg/dl**	
5%	**1:5**	**24h**	**80**	**4.5**	**-**	
5%	**1:5**	**24h**	**6**	**4.5**	**130mg/dl**	
5%	**1:5**	**24h**	**6**	**12**	**142mg/dl**	

6.3.3. Install the pH of effectiveness of Enzyme concentration of 10 %.

Concentration of diabetes solution	Ratio of diabetic solution to enzymatic solution	Incubation period	Temperature	PH	Decaying glucose ratio	Enzymatic decomposition ratio
10%	1:5	24h	80	7	2.3mg/dl	
10%	1:5	24h	25	7	62.6mg/dl	
10%	1:5	24h	6	7	21.8mg/dl	

6.3.4. Percentage of Glucose in Sediment Dates concentration different temperature and pH different of concentration of 10 %.

Concentration of diabetes solution	Ratio of diabetic solution to enzymatic solution	Incubation period	Temperature	PH	Decaying glucose ratio	Enzymatic decomposition ratio
10%		24h	6	4	1:5	68mg/dl
10%		24h	6	12	1:5	90mg/dl
10%		24h	80	4	1:5	23mg/dl
10%		24h	80	11	1:5	13mg/dl
10%		24h	25	4.5	1:5	110mg/dl
10%		24h	25	12	1:5	95mg/dl

6.3.5. Install the temperature of effectiveness of Enzyme concentration of 5 %.

Concentration of diabetes solution	Ratio of diabetic solution to enzymatic solution	Incubation period	Temperature	PH	Decaying glucose ratio	Enzymatic decomposition ratio
5%	1:5	3h	25	4	40mg/dl	
5%	1:5	3h	25	12	61mg/dl	
10%	1:5	3h	25	4	91mg/dl	
10%	1:5	3h	25	12	106mg/dl	
10%	1:5	3h	25	7	161mg/dl	
10%	1:5	3h	25	12	92mg/dl	

6.4. Measuring glucose ratio in leaky dates

6.4.1. Measurement of glucose ratio with temperature and PH stabilization with concentration of 5 %

Concentration of diabetes solution	Ratio of diabetic solution to enzymatic solution	Incubation period	Temperature	PH	Decaying glucose ratio	Enzymatic decomposition ratio
5%	1:1	3h	25	7	28.2mg/dl	
5%	2:1	3h	25	7	21.1mg/dl	
5%	3:1	3h	25	7	16.1mg/dl	
5%	4:1	3h	25	7	14mg/dl	

6-4-2. Install the temperature of effectiveness of Enzyme concentration of 10 %.

Concentration of diabetes solution	Ratio of diabetic solution to enzymatic solution	Incubation period	Temperature	PH	Decaying glucose ratio	Enzymatic decomposition ratio
10%	1:1	3h	25	7	30.8mg/dl	
10%	2:1	3h	25	7	26.3mg/dl	
10%	3:1	3h	25	7	18.6mg/dl	
10%	4:1	3h	25C	7	12.6mg/dl	

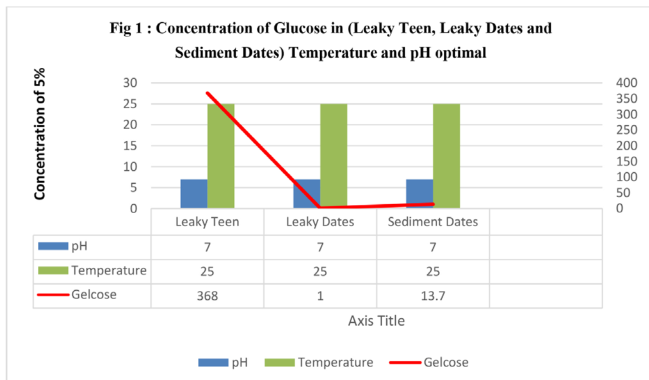

Figure 1

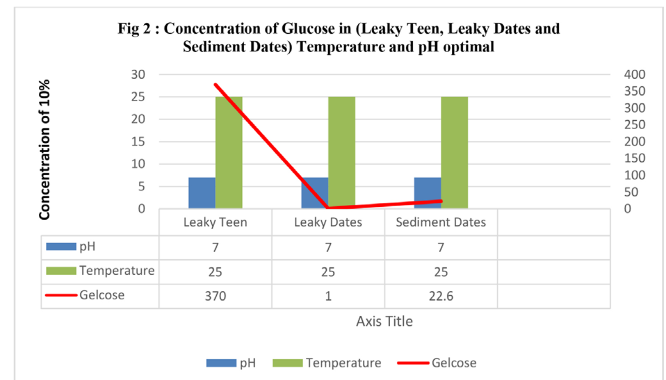

Figure 2

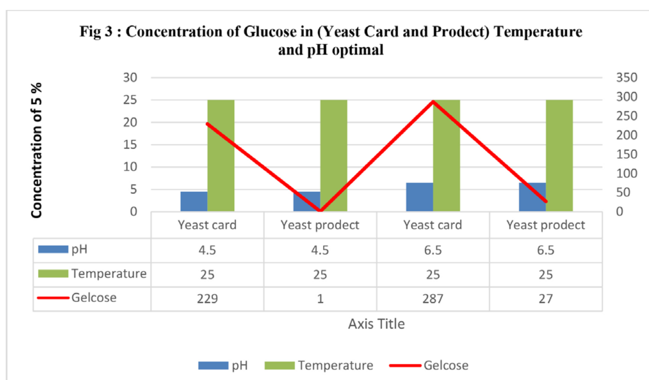

Figure 3

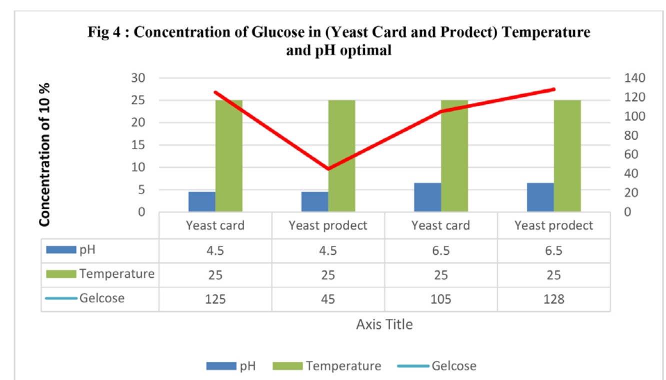

Figure 4

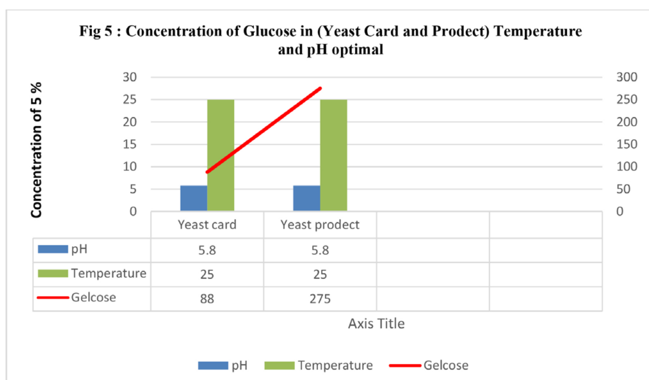

Figure 5

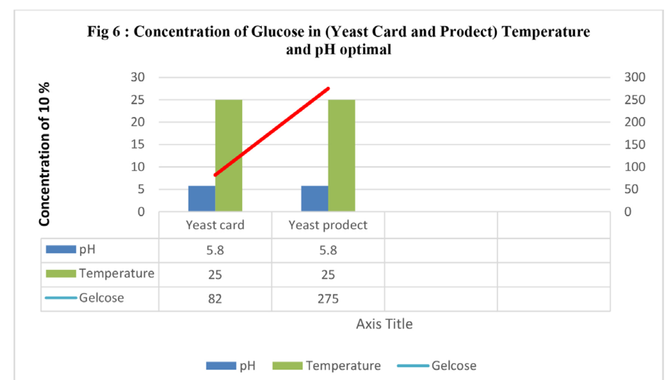

Figure 6

The results were an approach to the study conducted by (10; 16), which showed the possibility of producing an enzyme from molasses and raisins at high proportions, but it was a violation of the studies conducted by (16) which explained that the enzyme could be produced in moderate quantities of figs.

Conclusions

1. The ability of the enzyme to dissolve sucrose to Glucose and fructose.

2. Isolating Yeast Bread Saccharomyces Cerevisiae, from raisins much better than tomatoes, bread and figs.

3. The effect of the fig extract on the production of the enzyme was better than raisins and tomatoes at 80 ° C and pH = 7.

4. The sedimentation process by acetone gave better results than ammonium sulphate.

5. The temperature between 25-35 ° C gave better results for the enzyme.

6. Pre-fermented yeast was better than isolated when acetone was used or without it after 3 hours while yeast isolated was better without acetone at 5% concentration after 24 hours.

7. Calculation of the percentage of glucose in the sedimentation of the fermentation environment at a concentration of 10% after 24 hours gave negative results (both for the isolated yeast and the ready).

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