



— THE —

AZ TO

5000+ HEALTHY & EASY-TO-FIND  
SUBSTITUTIONS

FOOD SUBSTITUTION

# **THE A - Z FOOD SUBSTITUTIONS EBOOK**

Including Options for Vegan, Gluten-Free, Low-Sugar, Low-Fat, Low-Salt, and Lactose-Free

Jennifer Schlette

## The A to Z Food Substitutions

Copyright © 2023 by Jennifer Schlette

All ideas, suggestions, and guidelines mentioned in this book are written for informational purposes only and should not be considered as recommendations or endorsements for any particular product. The content included is not intended to be, nor does it constitute, the giving of professional advice. All recommendations are made without guarantees on the part of the author. The author shall not be held liable for damages incurred through the use of the information provided herein.

All right reserved. No part of this book may be used or reproduced in any manner whatsoever, except for brief reviews, without written permission of the author. Requests to make copies of any part of this book should be submitted online to [kitchensubstitute.com](http://kitchensubstitute.com).

## Contents

[A](#)  
[B](#)  
[C](#)  
[D](#)  
[E](#)  
[F](#)  
[G](#)  
[H](#)  
[I](#)  
[J](#)  
[K](#)  
[L](#)  
[M](#)  
[N](#)  
[O](#)  
[P](#)  
[Q](#)  
[R](#)  
[S](#)  
[T](#)  
[U](#)  
[V](#)  
[W](#)  
[X](#)  
[Y](#)  
[Z](#)

[Bibliography](#)

## A

### **ABALONE, FARMED, FRESH - 1 pound**

- 8 ounces dried abalone/*pao yu*, soaked in water for 3 to 4 hours
- 1 pound French conch, tenderized like fresh abalone
- 1 pound fresh clam meat

### **ABURAGE** See TOFU, DEEP-FRIED

### **AÇAÍ (South American antioxidant-rich purple berry) - 3.5 ounce-packet frozen pulp/puree**

- 1/2 to 3/4 cup dried Chilean wineberries/*maqui berries*, soaked in liquid for 30 minutes (higher in antioxidants)
- 1 cup fresh or frozen wild blueberries (lower in antioxidants)
- 1 cup fresh, or 1/2 cup dried, blue Oregon grapes/*Mahonia aquifolium/Berberis aquifolium* (lower in antioxidants; much tarter; press fresh berries through a food mill to remove large seeds)
- 1 cup fresh silverberries/*Elaeagnus umbellata* or *E. multiflora* (lower in antioxidants; higher in vitamin C and lycopene; press through a food mill to remove large seeds)

### **AÇAÍ JUICE (antioxidant-rich juice) - 1 cup**

- 2 tablespoons freeze-dried açai powder mixed with 1 cup water
- 2 tablespoons maqui berry powder mixed with 1 cup water (higher in antioxidants)
- 1 cup 100% blueberry juice, preferably fresh-pressed (lower in antioxidants)
- 2 tablespoons freeze-dried blueberry powder mixed with 1 cup water (lower in antioxidants)

### **ACHIOTE/ACHUETE** See ANNATTO OIL; ANNATTO SEEDS

### **ACHIOTE PASTE/RECADO ROJO (Latin American seasoning and coloring) - 1 tablespoon**

- 1 tablespoon Sazon Goya Seasoning
- 2 teaspoons ground annatto seeds or powdered annatto/*bijol* (for coloring; lacks seasoning)

- 1 teaspoon paprika (for coloring only)

***ACIDULATED WATER (anti-browning agent for certain cut fruits and vegetables) - 1 cup***

- 1 cup water plus 3/4 teaspoon kosher salt (rinse well with fresh water after soaking)
- 1 cup water plus 1 teaspoon distilled white vinegar
- 1 cup water plus 2 teaspoons lemon juice
- 1 cup water plus small pinch ascorbic acid granules, or 1 (250-mg) pure vitamin C pill crushed to a powder
- 1 cup apple juice (for holding prepared apples)

***ACITRÓN (Mexican candied cactus pieces) - 4 ounces***

- 4 ounces candied pineapple

***ACORN SQUASH, FRESH (oval-shaped, orange-fleshed winter squash) - 1 pound***

- 1 pound buttercup, butternut, Musquée de Provence, or Rugosa squash

***AGAR/AGAR AGAR/KANTEN (gelling agent derived from seaweed) - 2 teaspoons powdered***

- 3 tablespoons agar flakes or threads (increase soaking time to 10 to 15 minutes)
- 1 freeze-dried agar bar torn into pieces (increase soaking time to 30 or more minutes)
- 1 (1/4-ounce envelope/1 scant tablespoon) unflavored gelatin powder (follow package directions)
- 4 sheets silver leaf gelatin (follow package directions)
- 2 1/2 teaspoons apple pectin powder (follow package directions)

***AGAVE SYRUP/NECTAR, LIGHT OR DARK (honey-like sweetener made from agave cactus plants) - 1 tablespoon***

- 4 teaspoons brown rice syrup or coconut nectar
- 1 tablespoon palm honey/syrup, heavy/rich simple syrup, or Swedish light syrup/*ljus sirap*
- 2 teaspoons maple syrup, liquid honey, or barley malt syrup, plus 1 teaspoon water

- 1 tablespoon Jerusalem artichoke syrup (more expensive)

***AGAVE SYRUP/NECTAR, LIGHT OR DARK - 1 cup***

- 7/8 cup grade A dark, robust maple syrup plus 1 tablespoon water
- 3/4 cup mild-flavored liquid honey, such as acacia or clove, plus 2 tablespoons water
- 1 cup birch syrup
- 1 cup double-strength simple syrup (for drinks) *See SYRUP, SIMPLE/STOCK SYRUP, RICH/DOUBLE STRENGTH*
- 1 cup raw cane double-strength simple syrup made with coarse-grained unrefined sugar, such as turbinado or Demerara (for drinks)

***AGRETTI/ROSCANO/SALTWORT, FRESH (Italian leafy green vegetable) - 1 pound***

- 1 pound young puntarelle, dark outer leaves of escarole, nasturtium greens, or tender young dandelion greens (less salty tasting)

***AGRODULCE (sweet-sour flavoring agent) - 1 cup***

**Make Your Own** Bring 1/2 cup red wine vinegar and 1/2 cup sugar to a boil, stirring to dissolve the sugar. Cool and store in a tightly sealed jar in the refrigerator; it will keep indefinitely.

***AGRUMATO-LEMON OIL (Italian citrus oil) See LEMON-OLIVE OIL***

***AISH BALADI (Egyptian flatbread)***

- Whole-wheat pita bread

***AJI AMARILLO/AJI ESCABECHE, FRESH OR FROZEN (yellow Peruvian chile) - 1***

- 1 dried *aji mirasol* chile, soaked in hot water for 15 to 20 minutes
- 1 fresh yellow Hungarian wax/banana chile
- 1 large fresh red jalapeño chile
- 1 canned or jarred whole aji amarillo, rinsed
- 1 tablespoon jarred aji amarillo paste/*pasta de amarillo*
- 1 teaspoon aji mirasol powder/*aji molido*
- 1/4 teaspoon ground cayenne pepper

***AJI AMARILLO CHILE POWDER/AJI MOLIDO (Peruvian) - 1 teaspoon***

- 1 teaspoon aji amarillo paste/*pasta de amarillo*
- 1 teaspoon hot paprika mixed with 1/2 teaspoon ground turmeric
- 3/4 teaspoon ground cayenne pepper or crushed red pepper flakes

***AJI AMARILLO PASTE/PASTA DE AMARILLO (Peruvian condiment) - 1 tablespoon***

- 1 tablespoon sambal oelek (for a small amount)

***AJI CACHO DE CABRA See GOAT'S HORN PEPPER***

***AJI DULCE/AJI CACHUCHA (tiny Caribbean sweet peppers) - 6 to 10***

- 6 to 10 rocotillo chiles
- 1 fresh Cubanelle pepper
- 1/2 fresh bell pepper

***AJI LIMO, FRESH OR FROZEN (spicy Peruvian chile) - 1***

- 1 Scotch bonnet or habañero chile
- 1 fresh serrano or jalapeño chile (milder)
- 1 jarred aji limo, drained

***AJI PANCA, DRIED (large, mild Peruvian chile) - 1***

- 1 dried ancho, guajillo, New Mexico, or aji mirasol chile
- 1 teaspoon aji panca chile powder or aji mirasol chile powder
- 1 tablespoon jarred aji panca paste

***AJI ROCOTO/LOCOTO, FRESH OR FROZEN (medium-hot red Peruvian chile) - 1***

- 1 fresh Mexican manzano chile
- 2 or 3 fresh red serrano, Tabasco, or Thai chiles (for flavoring; less intense)
- 2 or 3 fresh red jalapeño or Fresno chiles (for stuffing or garnish)
- 2 to 3 rinsed rocoto/locoto peppers in brine (for flavoring)
- 1 tablespoon *aji rocoto* paste (for flavoring)

***AJI VERDE (Peruvian condiment) - 1 cup***

- 1 cup Mexican tomatillos salsa/*salsa verde* plus 2 tablespoons grated Cotija cheese/*queso añejo* blended until smooth

***AJWAIN/AJOWAN/CAROM SEEDS (Indian and Pakistani seasoning) - 1***



***teaspoon***

- 3/4 teaspoon lovage seeds plus 1/4 teaspoon fresh thyme leaves
- 1 packed teaspoon dried thyme leaves, finely crumbled

***AKEE/ACKEE (Caribbean fruit) - 2 dozen akees (1 cup edible flesh)***

- 1 (18-ounce) can akee, rinsed and drained

***ALATOPIPERIGANO (Greek seasoning salt) - 1 tablespoon***

- 2 teaspoons dried Greek oregano plus 1 teaspoon sea salt and a few grains of black pepper (stir before using to redistribute)

***ALCAPARRADO (Caribbean and Latin American condiment) - 2 tablespoons***

- 1 tablespoon each drained and chopped pimiento-stuffed olives and brined capers
- 1 teaspoon each diced green olives, red pimiento, capers, and a touch of garlic

***ALEPPO/HALABY CHILE, DRIED/PUL BIBER (Turkish/Middle Eastern) - 1***

- 1 dried Marash chile (smokier and spicier)
- 1 dried Antebi chile (milder and fruitier)
- 1 dried Urfa chile/Isot pepper (sweeter and smokier)
- 1 fresh or dried cayenne or serrano chile (more readily available)

***ALEPPO/HALABY CHILE POWDER (Turkish/Middle Eastern) - 1 teaspoon***

- 1 teaspoon Urfa or ancho chile powder
- 1/2 teaspoon crushed red pepper flakes

***ALEPPO/HALABY PEPPER FLAKES (Turkish/Middle Eastern) - 1 teaspoon***

- 1 teaspoon Marash pepper flakes/*maras biber* (smokier)
- 1 teaspoon Urfa pepper flakes/*Urfa biber* (darker colored; smokier tasting)
- 3/4 teaspoon Aleppo, Urfa, or ancho chile powder
- 3/4 teaspoon gochugaru chile flakes or powder
- 3/4 teaspoon Hungarian sweet/mild paprika plus 1/4 teaspoon ground cayenne pepper
- 1/2 teaspoon crushed red pepper flakes

**ALFALFA SPROUTS** See *SPROUTS*

**ALL-PURPOSE FLOUR** See *FLOUR, ALL-PURPOSE*

**ALLSPICE, JAMAICAN/PIMENTO BERRIES, DRIED - 1 teaspoon ground**

- 1 teaspoon ground Mexican or Central American allspice (larger berries; less aromatic)
- Scant 1/2 teaspoon each ground cloves and cinnamon plus scant 1/4 teaspoon ground nutmeg
- 1/2 teaspoon ground cinnamon plus 1/8 teaspoon ground cloves

**ALMOND BUTTER - 1 cup**

- 1 cup coconut butter, cashew butter, hazelnut butter, peanut butter, or tahini

**Make Your Own** Grind 2 cups roasted almonds with 1/2 teaspoon sea salt (optional) in a food processor until reduced to a paste, about 10 minutes, scraping down the sides of the bowl as needed. Transfer to a sterilized jar and store in the refrigerator; it will last for up to 4 weeks.

**ALMOND EXTRACT - 1/2 teaspoon**

- 1 drop bitter almond oil
- 1/2 teaspoon amaretto extract
- 1 tablespoon almond-flavored liqueur

**ALMOND FLOUR** See *ALMOND MEAL*

**ALMOND FLOUR, TOASTED - 1 cup**

**Make Your Own** Spread 1 cup almond flour on a baking sheet and toast in a preheated 350°F oven until golden, 6 to 7 minutes.

**ALMOND LIQUEUR/ALMOND-FLAVORED SPIRIT (such as amaretto, crème d'amande, or ratafia) - 1 tablespoon for cooking**

- 1/4 teaspoon almond extract plus 1 tablespoon vodka or water

**ALMOND MEAL - 1 cup**

- 1 cup almond flour/powder (finer texture; more expensive)
- 1 cup hazelnut or chestnut flour (finer texture; more expensive)
- 1 cup pumpkin seed or sunflower seed meal (denser texture; best for cookies and muffins)

**Make Your Own** Grind 1 1/2 cups sliced or slivered almonds in a blender or

food processor until mealy (add a teaspoon or more of sugar or flour from the recipe to avoid oiliness or freeze the almonds before grinding).

Alternatively, grind the almonds in batches in a spice/coffee grinder, then strain and regrind any large pieces. Store, refrigerated, in an airtight container; it will keep for up to 6 months.

### ***ALMOND MILK - 4 cups***

- 4 cups purified water plus 1/2 cup smooth raw almond butter, processed in a blender or food processor until smooth

- 4 cups unsweetened hazelnut, walnut, or soy milk

**Make Your Own** Soak 1 to 2 cups freshly blanched raw almonds in water to cover for 10 to 12 hours. Drain, rinse, and then blend with 4 cups water until smooth, 3 to 4 minutes. Strain through a nutmilk bag or cheesecloth-lined sieve, pressing firmly on the pulp to extract all the liquid. Keep refrigerated and shake before using. It will keep for up to 5 days. (For thinner milk, increase water to 5 cups; for more nutritious milk, blend the almonds with fresh coconut water.)

### ***ALMOND PASTE - 1 cup***

**Make Your Own** Pulse 1 cup finely ground blanched almonds, 3/4 cup granulated sugar, 2 tablespoons water, and 1/2 teaspoon pure almond extract in a food processor until a paste forms, and then knead until smooth. It will keep, well-wrapped, for up to 1 month in the refrigerator, or up to 1 year in the freezer.

### ***ALMOND SYRUP/ORZATA (Greek) - 1/4 cup***

- 1/4 cup orgeat syrup

- 1/4 cup amaretto-coffee flavoring syrup

- 1/4 cup simple syrup (*See SYRUP, SIMPLE*) flavored with 1/8 to 1/4 teaspoon almond extract, plus a few drops of rose water or orange-flower water, if available

### ***ALMONDS, GREEN, FRESH (soft, unripe almonds) - 1 cup for cooking***

- 1 cup mature blanched almonds, gently boiled in 4 cups water until softened, about 2 hours (replace water as needed)

- 1 cup mature blanched almonds, soaked for 8 to 12 hours in 2 cups warm water containing 1 teaspoon baking soda

### ***ALMONDS, MARCONA ROASTED (soft flat Spanish almonds) - 1 pound***

- 1 pound California blanched almonds, soaked in salted water for 8 to 12 hours; drained, tossed with 1 tablespoon olive oil, then toasted at 300°F until dry, 10 to 15 minutes, stirring halfway through
- 1 pound oven-roasted almonds, such as Blue Diamond

***ALMONDS, SWEET - 1 cup shelled***

- 1 cup shelled and skinned hazelnuts

***ALUM/ALUMINUM POTASSIUM SULPHATE (firming agent for pickles)***

- Pickling lime/cal/calcium hydroxide (use as a soak following package directions)
- Pickle Crisp granules/calcium chloride (add to the brine following package directions, usually 0.1 to 0.4 percent diluted in 2 tablespoons purified water, or 1/8 teaspoon added directly to a hot canning jar before filling)
- Freshly washed grape, oak, or sour cherry leaves for naturally fermented pickles (add to the jar, using 1 leaf per 4 or 5 cucumbers)
- Unrefined sea salt (use as the salt ingredient; contains traces of nitrate)

***AMARANTH FLOUR - 1 cup***

- 1 cup brown rice flour
- 1 cup sorghum flour
- 1 cup light-colored teff flour

***AMARANTH GRAIN - 1 cup***

- 1 cup quinoa or Bolivian *canahua*
- 1 cup millet (like amaranth, it tastes best when lightly toasted in a dry skillet before adding liquid)

***AMARANTH GREENS/CHINESE SPINACH/QUINTONILES/TAMPALA - 1 pound***

- 1 pound Swiss chard leaves
- 1 pound small flat-leaf spinach or baby spinach
- 1 pound lamb's quarters
- 1 pound New Zealand spinach/warrigal greens
- 1 pound young pumpkin greens
- 1 pound quinoa greens

- 1 pound orach/mountain spinach

**AMARILLO PEPPER** *See AJI AMARILLO*

**AMCHUR/AMCHOOR/GROUND MANGO POWDER (Indian souring agent) - 1 teaspoon** *See also MANGO, GREEN*

- 1 piece/section of sun-dried amchoor/dried mango (remove before serving if added to curry)
- 1/2 teaspoon tamarind powder
- 1/3 teaspoon powdered citric acid (found in the canning section of the supermarket)
- 1 teaspoon ground sumac or powdered lemon peel
- 1 to 2 teaspoons very finely grated lemon zest (spread it out to dry slightly before using; for sprinkling as a garnish)

**AMMONIUM BICARBONATE/AMMONIUM CARBONATE/HARTSHORN/BAKER'S AMMONIA (leavening agent) - 1 teaspoon finely crushed**

- 1 teaspoon cream of tartar
- 1 teaspoon single-acting, aluminum-free baking powder
- 1 1/4 teaspoons baking soda

**ANAHEIM CHILE, FRESH (mild green chile) - 1**

- 1 fresh New Mexico, poblano, or Hungarian wax chile
- 1 frozen green chile, thawed; or canned whole green chile, drained (half a 4-ounce can)
- 1 fresh bell pepper, Cubanelle pepper, or sweet banana pepper, plus a pinch of New Mexico Hatch green chile powder

**ANARDANA** *See POMEGRANATE SEEDS, DRIED SOUR*

**ANCHO CHILE (dried red poblano chile) - 1**

- 1 dried black Urfa chile
- 1 dried choricero pepper
- 1 dried California, guajillo, mulato, pasilla, or New Mexico chile, plus a pinch of sweet smoked paprika
- 1 tablespoon ancho chile powder (or pasilla or New Mexico Hatch chile powder plus a small pinch of mild/sweet smoked paprika)

- 1 tablespoon ancho paste
- 1/2 teaspoon Urfa chile flakes/*Urfa biber*, or ground cayenne pepper

***ANCHO CHILE PASTE*** See *CHILE PASTE, MILD*

***ANCHO CHILE POWDER - 1 tablespoon*** See also *CHILE POWDER, MILD*

- 1 medium ancho chile, dry toasted, stemmed, and ground
- 1 tablespoon New Mexico, pasilla, or mild chile molida powder
- 1 tablespoon ancho pepper paste
- 1 1/2 to 2 tablespoons hot Hungarian paprika

***ANCHOVY FILLETS, FRESH - 4 ounces***

- 4 ounces brined white anchovy fillets/*boccarones*, rinsed and patted dry (softer)
- 4 ounces small, fresh sardines, smelt, or sprats/brislings (firmer and meatier)

***ANCHOVY FILLETS, OIL PACKED - 2 fillets (1 1/2 teaspoons finely chopped)***

- 2 to 3 salt-packed anchovy fillets, rinsed, or 1 salt-packed anchovy, rinsed and filleted (firmer texture; soak in water until flexible, 5 to 10 minutes, or 30 minutes to remove salt)
- 1 to 1 1/2 teaspoons anchovy paste or extract (contains vinegar and sugar)
- 1 or 2 fresh, frozen, or canned smelts
- 1/2 teaspoon Asian fish sauce, such as *nam pla* or *nuoc nam*; Filipino anchovy/shrimp sauce/*bagoong isda*; or vegetarian fish sauce/*nuoc mam an chay*
- 1 teaspoon Japanese *ayu* fish sauce (less salty)
- 1 generous tablespoon drained chopped capers

***ANCHOVY PASTE - 1 teaspoon***

- 1 salt-packed anchovy, rinsed, boned, minced, and mashed to a paste with a little olive oil
- 1 oil-packed anchovy fillet, rinsed, minced and mashed to a paste (or put through a garlic press)
- 1 firmly packed tablespoon finely chopped water-packed tuna
- 1 teaspoon dark miso, such as *inaka* or *hatcho*

- 1 teaspoon Worcestershire sauce plus 1/2 teaspoon powdered kelp or crushed dried dulse flakes
- 1/2 teaspoon sugar-free Asian fish sauce or Italian anchovy syrup/*colatura di alici*

***ANCHOVY SAUCE/MAM NEM (Vietnamese cooking condiment) - 1 tablespoon***

- 2 teaspoons anchovy paste plus 1 teaspoon water

***ANDOUILLE (Creole/Cajun garlicky smoked pork sausage) - 1 pound***

- 1 pound turkey andouille, or vegetarian andouille, such as Soyrizo
- 1 pound Spanish dry-cured chorizo, Portuguese dry-cured chouriço or linguiça, or other spicy ready-to-eat sausage
- 1 pound smoked kielbasa (meat or turkey) plus a small dash of hot pepper sauce such as Tabasco or Crystal

***AÑEJO See COTIJA/QUESO AÑEJO***

***ANGELICA STALKS, FRESH - 1 pound***

- 1 pound wild angelica/*Angelica atropurpurea* (more bitter)
- 1 pound fresh lovage stalks

***ANGLED LOOFAH SQUASH See CHINESE OKRA***

***ANISE EXTRACT - 1 teaspoon***

- 1 1/2 tablespoons anise seeds, ground in a mortar or a spice/coffee grinder
- 2 teaspoons ground anise seeds
- 1/8 teaspoon anise oil

***ANISE HYSSOP/LICORICE MINT/AGASTACHE FOENICULUM, FRESH - 1 tablespoon chopped***

- 1 tablespoon chopped fresh Korean mint/*Agastache rugosa* or young Mexican giant hyssop
- 1 1/2 teaspoons each chopped fresh thyme and mint

***ANISE LIQUEUR/ANISE-FLAVORED SPIRIT (such as Absente, arak, Herbsaint, ouzo, pastis, Pernod, Ricard, sambuca, xtabentún, or other unsweetened anise-flavored spirit) - 1 tablespoon for cooking***

- 1 tablespoon vodka plus 1 teaspoon ground anise seeds

- 1/2 teaspoon anise extract plus 2 teaspoons water

***ANISE SEEDS - 1 teaspoon***

- 2 whole star anise pods, crushed or coarsely ground, or 1 1/2 teaspoons broken pieces
- 1/4 teaspoon anise extract
- 1 1/4 teaspoons fennel or caraway seeds

***ANNATTO OIL/ACEITE/MANTECA DE ACHIOTE (Latin American coloring agent) - 1/4 cup***

- 1/4 cup olive oil plus 1 teaspoon sweet paprika

**Make Your Own** Slowly heat 1 to 2 tablespoons annatto seeds and 1/4 cup vegetable oil until the oil turns orangey-red and the seeds begin to crackle, 5 to 7 minutes; strain and cool. Store in an airtight container in the refrigerator; it will keep for up to 1 year. (For annatto chili oil, include 1 small crushed dried red chile when heating the seeds and oil.)

***ANNATTO SEEDS/ACHIOTE (Latin American and Caribbean coloring agent) - 1 teaspoon***

- 1/4 to 1/2 teaspoon liquid annatto (from cheese making suppliers)
- 1/2 teaspoon finely ground annatto seeds or achiote powder/*bijol*
- 3/4 teaspoon achiote paste/*condimento de achiote* (contains oregano and other ingredients), or Yucatan achiote paste/*recado rojo/Achiote recado* (contains garlic and vinegar)
- 1 teaspoon pesticide-free dried marigold petals, preferably pot marigold/*Calendula officinalis*, steeped in 1 or 2 tablespoons warm water for 5 minutes (use the liquid for color and discard the petals)
- 1/4 teaspoon sweet California or Hungarian paprika and 1/2 teaspoon ground turmeric, preferably Madras
- 1/2 teaspoon crumbled azafrán (Mexican saffron) or 1/8 teaspoon pure saffron

***ANTHOTIRO/ANTHRÓTYRO (soft white goat's or sheep's milk Greek cheese) - 1 ounce***

- 1 ounce fresh manouri, mizithra, or ricotta, plus a little finely grated feta (for fresh)
- Aged ricotta salata, aged mizithra, Pecorino Romano, or Parmesan (for